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# University of <br> Northern Iowa 



Bulletin - Catalog Issue 1976-1978

# University of Northern Iowa Bulletin 



# University Catalog 

## 1976-1978

Effective Spring Semester - 1976

UNIVERSITY OF NORTHERN IOWA BULLETIN. Issued four times a year by the University of Northern Iowa, 1222 West 27th Street, Cedar Falls, Iowa 50613, during the months of January, February, March, and October. Second-class postage paid at Cedar Falls, Iowa 50613.


## w




Robert D. Stansbury Vice-President for Administrative Services


Thomas W. Hansmeier Vice-President for Student Affairs and Special Assistant to the President

Jan.
Jan.
March
March
March
April
May 9-13
May 14
May
14

June
June
July


## Spring Semester 1977

Mon., Orientation and Registration, 8 a.m. to 4 p.m.

## Tue., Instruction begins, 8 a.m.

Sat., End of first half-semester, 12 noon.
5 Sat., Spring vacation begins, 12 noon.
Mon., Instruction resumes, 8 a.m.
Fri., Academic Holiday
9-13 Mon.-Fri., Final examinations.
14 Sat., Semester ends, 4 p.m.
Sat., Commencement.

## Summer Session 1977

July
July
July
July
August 1-12

6
Mon., Registration, 8 a.m. to 4 p.m.
7 Tue., Instruction begins, 7:30 a.m.
1 Fri., End of first 4-weeks.
4 Mon., Legal Holiday.
Tue., Instruction resumes, 7:30 a.m.
Fri., 8-week session ends.
Fri., Commencement.
Post Session.

Edward V. Voldseth Vice-President for University Relations and Development


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## University of Northern Iowa Campus



## MAP DIRECTORY

Academic and Activity Areas
1 Art No. 2
1 Art No. 2 Industries
3 Arts and Indust
3 Athletic Fields
5 Auditorium
6 Biology Research Complex
7 Ceramics Studio
8 Crafts Shop and Psychology No. 2
9 Education Center
10 Erickson Garage
11 Home Management House

12 Industrial Technology Center 13 Men's Gymnasium
13 Men's Gymnasium
14 Old Administration Building 14 Old Administration Building 15 Physical Education Center 16 Physics Building
17 Price Laboratory School
19 Russell Hall
20 Sabin Hall
21 Science Building
22 Seerley Hall
23 Speech-Art Complex
24 Women's Gymnasium and Pool 25 Wright Hall

Residence and Dining Areas
26 Bartlett Hall
27 Bender Hall
28 Campbell Hall
29 Coliege Courts
30 Dancer Hall
31 Hagemann Hall
32 Hillside Courts (not shown)
33 Lawther Hall
34 Noehren Hall
35 President's Residence
36 Redeker Center
37 Rider Hall
38 Shull Hall
40 Towers Dining Center

Administration and Institutional Areas 41 Campanile
42 Center for Business and Behavioral Research
43 Commons and Media Center
44 Culture House
44 Culture House 46 Greenhouse
46 Greenh
48 Mathematics Learning Center 49 Maucker University Union
50 Museum and Plant Services Building (not shown)
51 O. R. Latham Field
52 Power Plant No. 1
53 Power Plant No. 2 (not shown) 54 Radio Tower and Shack (not shown)
55 Storage Yards (not shown) 56 Student Health Center 57 UNI-Dome


President James C. Gilchrist


President Homer H. Seerley

Spring Semester 1976
Jan. 12 Mon., Registration, 8 a.m. to 4 p.m.
Jan. 13 Tue., Instruction begins, 8 a.m.

March 6 Sat., End of first half-semester, 12 noon.
March 6 Sat., Spring vacation begins, 12 noon.
March 15 Mon., Instruction resumes, 8 a.m.
April
May
May
10-14 Mon.-Fri., Final Examinations.
15 Sat., Semester ends, 4 p.m.
May
15

## Summer Session 1976

June June July July
July
July
Aug.
Mon., Registration, 8 a.m. to 4 p.m.
8 Tue., Instruction begins, 7:30 a.m.
2 Fri., End of first 4-weeks.
5 Mon., Legal Holiday.
30 Fri., 8-week session ends.
30 Fri., Commencement.
2-13 Post Session.

## Fall Semester 1976

Aug. 23-25
Mon.-Wed., Orientation and Registration, 8 a.m. to 4 p.m.
Aug. 26
26
Thur., Instruction begins, 8 a.m.
$\begin{array}{lr}\text { Sept. } & 6 \\ \text { Oct. }\end{array}$
Mon., Legal Holiday.
Sat., End of first half-semester,
12 noon.
Nov. 24
Nov.
29
Dec. 16-22
Dec.
ed., Than 12 noon.

Robert D. Stansbury Vice-President for Administrative Services



Thomas W. Hansmeier
Vice-President for Student Affairs and Special Assistant to the President

| Jan. | 10 |
| :--- | ---: |
|  |  |
| Jan. | 11 |
| March | 5 |
| March | 5 |
| March | 14 |
| April | 8 |
| May | $9-13$ |
| May | 14 |
| May | 14 |

June
June
July
July
July
July
July
August


Spring Semester 1977
Mon., Orientation and Registration, 8 a.m. to 4 p.m.
Jan. 11 Tue., Instruction begins, 8 a.m.
Sat., End of first half-semester, 12 noon.
Sat., Spring vacation begins, 12 noon.
14 Mon., Instruction resumes, 8 a.m.
8 Fri., Academic Holiday
9-13 Mon.-Fri., Final examinations.
14 Sat., Semester ends, 4 p.m.
14 Sat., Commencement.

## Summer Session 1977

6 Mon., Registration, 8 a.m. to 4 p.m.
7 Tue., Instruction begins, 7:30 a.m.
1 Fri., End of first 4-weeks.
4 Mon., Legal Holiday.
5 Tue., Instruction resumes, 7:30 a.m.
29 Fri., 8-week session ends.
29 Fri., Commencement.
1-12 Post Session.

Edward V. Voldseth Vice-President for University Relations and Development

Aug. 22-24 Mon.-Wed., Orientation and Registration, 8 a.m. to 4 p.m.
Aug.
25 Thur., Instruction begins, 8 a.m.
Sept. 5 Mon., Legal Holiday.
Oct. 22 Sat., End of first half-semester, 12 noon.
Nov. 23 Wed., Thanksgiving vacation begins, 12 noon.
Nov. 28 Mon., Instruction resumes, 8 a.m.
Dec. 15-21 Thur.-Wed., Final examinations.
Dec.
22
Thur., Semester ends, 5 p.m.

## Spring Semester 1978

Jan. 9 Mon., Orientation and Registration,

$$
8 \text { a.m. to } 4 \text { p.m. }
$$

Jan.10

March4

Tue., Instruction begins, 8 a.m.
Sat., End of first half-semester, 12 noon.
March 4 Sat., Spring vacation begins, 12 noon.
March 13 Mon., Instruction resumes, 8 a.m.
March
24
May 8-12
May 13
13 Sat., Semester ends, 4 p.m.
May 13 Sat., Commencement.

## Summer Session 1978

$\begin{array}{lll}\text { June } & 5 & \text { Mon., Registration, 8 a.m. to } 4 \text { p.m. } \\ \text { June } & 6 & \text { Tue., Instruction begins, 7:30 a.m. }\end{array}$
June
June 30 Fri., End of first 4 -weeks session.
July
3-4 Mon.-Tue., Legal Holiday.
July 5 Wed., Instruction resumes, 7:30 a.m.
July $\quad 28$ Fri., 8-week session ends.
July


President Orval R. Latham


President Malcolm Price


President James W. Maucker


This edition of the Catalog of the University of Northern Iowa is being published during the bicentennial celebration of the independence of the United States and the centeninial celebration of the establishment of the University of Northern Iowa. On this campus, the two celebrations have been coordinated into one celebration with a number of events commemorating both. So, too, the Catalog published at this time recognized appropriately the significance of the anniversaries.

When the centennial celebration of the independence of the United States attracted all attention, the "School for the Instruction and Training of Teachers of Common Schools" had its first session on Wednesday, September 6, 1876, at Cedar Falls, Iowa. A cold, drenching rain and a heating system under repair greeted the twenty-seven prospective students and four faculty members who met that first day, according to the historian of the university.

As the centennial edition of the Catalog goes to press, the heating system is not under repair, and the university yearly enrolls more than 14,000 individuals in various phases of its instructional programs. For 100 years, many individuals have contributed great efforts to create the modern University of Northern Iowa. To them this Catalog is dedicated in grateful recognition.


Its Program
The University of Northern Iowa is a member of the American Association of Colleges for Teacher Education (AACTE) and the Council of Graduate Schools in the United States. The university is fully accredited through the master's degrees and the sixth-year specialist's degrees by the North Central Association of Colleges and Secondary Schools (NCA) and by the National Council for Accreditation of Teacher Education (NCATE). The university's programs are also accredited by the National Association of Schools of Music, the National Council of Social Work Education, TheAmerican Speech and Hearing Association, the Iowa State Department of Public Instruction, and the National University Extension Association, and approved by the American Chemical Society.

The university enters its centennial year-1976-with a broad curriculum at both the undergraduate and graduate levels. Three baccalaureate degrees are offered: the Bachelor of Arts, the Bachelor of Technology, and the Bachelor of Music. On the graduate level, five degrees are offered: the Master of Arts, the Master of Arts in Education, the Master of Business Administration, and the sixth-year Specialist and Specialist in Education degrees.

Four instructional colleges and the Graduate College comprise the academic structure of the university, with colleges and departments grouped as follows:

College of Business and Behavioral Sciences-
School of Business
Business Education and Office Administration
Economics
Geography
History
Home Economics
Political Science
Psychology
Sociology, Anthropology, and Social Work
College of Education-
Curriculum and Instruction
Educational Psychology and Foundations
Library Science
Physical Education for Men
Physical Education for Women
School Administration and Personnel Services
Teaching
College of Humanities and Fine Arts-
Art
English Language and Literature
Foreign Languages
Music
Philosophy and Religion
Speech
Speech Pathology and Audiology

# The University and Its Program 

College of Natural Sciences-<br>Biology<br>Chemistry<br>Earth Science<br>Industrial Technology<br>Mathematics<br>Physics

The university was established in 1876 by enactment of the Iowa General Assembly, and opened on September 6, 1876 as the Iowa State Normal School-"a school for the special instruction and training of teachers for the common schools of the state." In 1909, the institution was renamed the Iowa State Teachers College, and under this name attained a national reputation and status as a leading institution in the field of teacher education.

On July 5, 1961, by enactment of the Iowa General Assembly, the name of the school was changed to the State College of Iowa. This change made the school's increased facilities of greater service to the state with the offering of degree programs for those not planning to teach. Two programs leading to the Bachelor of Arts degree, one with certification to teach and one without certification, became available.

The change to the University of Northern Iowa was effected on July 1, 1967, following an enactment by the Iowa General Assembly on the recommendation of the State Board of Regents. With university status, the function of the institution was redefined as follows:
"The University shall offer undergraduate and graduate courses of instruction, conduct research and provide extension and other public services in the areas of its competence to facilitate the social, cultural and economic development of lowa. Its primary responsibility shall be to prepare teachers and other educational personnel for schools, colleges and universities and to carry out research and provide consultative and other services for the improvement of education throughout the state. In addition, it shall conduct programs of instruction, research and service in the liberal and vocational arts and sciences and offer such other educational programs as the State Board of Regents may from time to time approve."
University status has brought increased attention to research and services, particularly in the field of education, as well as the offering of a broader curriculum on both the graduate and undergraduate levels. The Bachelor of Arts and the Bachelor of Technology, which was added in 1968, are both available on two programs, one with certification to teach and one without certification. The degree programs cover a wide diversity of teaching, vocational, and liberal arts career fields. The Bachelor of Music degree, which was added in 1969, provides programs for the preparation and training of professional performers as well as other fields where a high degree of musical knowledge or performance skill is required. The expansion of the graduate-level degree programs reflects the university's continuing efforts to meet the needs of higher education; five degrees are now offered: the Master of Arts in Education, the Master of Arts, the Master of Business Administration, the Specialist, and the Specialist in Education. The graduate program is given in detail beginning on page 200.

The University of Northern Iowa has grown from its 1876 beginning campus site of 40 acres with one building-Central Hall which originally had housed orphaned children of Civil War soldiers-until it now embraces more than 40 principal buildings on a campus of some 720 acres, with a faculty numbering about 575 and a student body of approximately 10,000 . In addition to its physical growth, the university continues to underwrite the development of new programs which
reach into the wider community, including the unique UNI Center for Urban Education (UNICUE) which is located in the heart of the urban area of Waterloo, Iowa. The internationally known North American Review, which was established in 1815 in Boston and is the oldest periodical in the United States, is now published under the auspices of the University of Northern Iowa.

The university is located in Cedar Falls, Iowa, north and east of the geographic center of Iowa, on the Cedar River. Cedar Falls has a population of approximately 32,000 with the Cedar Falls-Waterloo greater metropolitan area having a population of more than 106,000 . Together with the University of Iowa and Iowa State University of Science and Technology, the University of Northern Iowa is governed by the State Board of Regents.

## 1876-1976 Centennial Observance

The University of Northern Iowa's centennial observance in 1976 will be marked with a variety of appropriate events designed to usher in its second century of service to higher education. The UNI Foundation in 1973 launched a 10 -year, $\$ 10$-million fund drive in three phases to finance the construction of the UNI-Dome-a covered, multi-purpose coliseum scheduled to open at the outset of the centennial year, an auditorium, and special additions to the university's academic resources. In preparation, also, is a special, commemorative centennial history book dealing with the evolution of the institution from its founding in 1876 to the present day.

Special programs featuring nationally noted educators and other prominent persons, and individuals and groups renowned in the arts, will be presented during the centennial year.

A series of dedications and similar events occuring in conjunction with the centennial observance during the 1975-76 academic year include ground breaking for the Speech-Art Complex as well as the dedications of the Edward L. Bailey Memorial in the university's Biological Preserve System, the Administration Building, the Biology Research Center, the UNI-Dome, the Physical Education Center, the new addition to the University Library, and the Industrial Technology Building and the Education Center-these last two will include the naming of certain facilities and lecture halls in honor of former staff members.


## General Information



The student at the University of Northern Iowa has a wide variety of services and facilities available to enrich his education beyond the academic work in the classroom and to serve him in the round-the-clock living at UNI. These are described in the following sections:

Student Housing<br>Student Services<br>Student Financial Aid<br>Student Activities and Honors<br>University Facilities and Educational Services

## Student Housing

The State Board of Regents requires that all unmarried freshman and sophomore men and women live in university residence halls unless they live in the homes of their parents or legal guardians. Any exceptions to these requirements must be approved by the Housing Office prior to the beginning of any semester.

All other students may live in housing of their choice. Graduate students can be accommodated in university residence halls.

APPLICATION FOR ROOMS IN RESIDENCE HALLS-The housing contract serves as the official application for a room reservation in the residence halls (see p. 37). The Housing Office will process the application upon receipt of both the completed contract and the $\$ 30.00$ deposit fee. If an applicant for whom a room has been reserved finds it necessary to cancel the contract, the deposit fee is refunded.

In the assignment of residence hall rooms, an effort is made to give room preferences of returning students prior consideration. Definite assignments for new students are made only after they have been admitted to the university. Notices of assignment are mailed before the opening of a semester.

OCCUPANCY-The residence period for new students commences one day prior to the beginning of the Orientation program; for returning students, occupancy may begin one day prior to the last day of registration for former students. If a reserved room is not occupied on the opening day of classes and arrangements have not been made for later occupancy which are acceptable to the Housing Office, the reservation my be cancelled. All students must vacate the halls by noon on the day following the end of the final examination period for the semester or term for which they were registered.

RATES-Residents of all halls other than Bartlett pay a fee of $\$ 514$ per academic semester for a double room with full board. These rates may vary with single room occupancy or if less than full board option is selected. Charges include a $\$ 4$ activity fee and a telephone in each room.

Bartlett Hall houses graduate students and some qualifying undergraduates who are over 22 years of age. A double room with full board is $\$ 509$ per academic semester. A single room with no board is $\$ 306$ for the academic semester. The fee includes a $\$ 4$ activity fee; telephones are available in the corridors.

A double room with full board for the 8 -week summer session is $\$ 240$. The residence halls to be used during the summer are announced prior to the beginning of that particular summer session.

The housing contract is for the entire academic year, or summer session. If the contract is terminated before the expiration date, the plan of refunding as stated in the contract will apply, but
the student is responsible for any financial liabilities incurred prior to the date of termination.
The above rates are subject to change.

## Residence Halls

The Housing Department provides a maximum occupancy of 4,100 spaces in nine residence halls. In addition to student rooms, each hall contains lounges, study rooms, recreational areas, laundry rooms, and other facilities for the comfort and convenience of its occupants.

Within each hall, areas or wings which accommodate approximately 50 students are designated as houses. Each house elects its own officers and sponsors its own social, cultural, and recreational activities. An upperclass-student staff member, known as a Resident Assistant, lives in each house to serve as an information resource to all students.

Women's halls include Campbell, Dancer, Hagemann, Lawther, and Noehren. Men are housed in Bender, Rider, and Shull Halls, and in a wing of Noehren Hall.

## Married Student Housing

One and two-bedroom apartments, furnished and unfurnished, are available to married students. College Courts and South Courts provide units for 147 student families. Hillside Courts houses 278 families. Assignments are made on a date of deposit priority basis. Applications and all inquiries should be directed to:

Married Student Housing Office
105 "E" Street
Hillside Courts
Cedar Falls, Iowa 50613

## Food Service

Food service is included in the residence hall fee and, with the exception of the residents of Bartlett Hall, students living in university residence halls are expected to eat in the university dining centers.

Three meals are served daily, Monday through Saturday, but only breakfast and midday dinner are served on Sunday. Three options are available: "no breakfast," "no weekend," and "no breakfast and no weekend" as well as the customary full board. A student who lives off campus may make arrangements to eat some or all of his meals in a university dining center.

## Student Costs

The over-all cost for undergraduate students who are residents of lowa is approximately $\$ 2,300$ for the academic year.

Basic fee
Board and room
Books, supplies, and incidentals
\$ 630
1020
650

Non-resident students are charged an additional $\$ 570$ basic fee. For a full statement of fees (summer session, applied music, etc.) for both undergraduate and graduate students, see pages 48 and 49.

Students are required to provide their own textbooks. Ordinarily the cost for these books will be $\$ 85$ to $\$ 90$ a semester. Students may buy their texts from any source. Student organizations operate a book exchange at the beginning of each semester.

## Student Services

ACADEMIC ADVISING AND NEW STUDENT ORIENTATION-Through the Office of Academic Advising and New Student Orientation, all new students entering the university are assigned academic advisers based upon their choice of major. General advisers and other student personnel staff members are available to assist students exploring majors.

Orientation programs are designed to acquaint students with university resources available to them in setting and achieving their educational goals through the Academic Advising and New Student Orientation Office. After admission to the university, each new student is invited to campus to attend orientation activities and register for classes. These programs include placement testing, advising and registration, academic and social activities for students, information sessions, and opportunities for parents to meet informally with faculty and staff.

Students who begin in the fall term are invited to two-day orientation programs during the months of June and July. Those who begin during the spring and summer terms are invited to attend orientation immediately before classes begin.

Campus tours are offered through the orientation program in the summer, and throughout the year to prospective students by the Admissions Office.

COUNSELING SERVICE-Counseling services at the University of Northern lowa are designed to assist students in becoming more effective as students and as persons, and to grow in self-understanding in order to cope more effectively with immediate situations and with future decisions. To help students benefit from their educational careers and develop their potentialities, professional counseling services are provided for a wide range of normal problems pertaining to vocational and educational choices, academic progress, personal and social adjustment, marital or pre-marital adjustment, and improvement of study skills.

Staff members are professional counselors and psychologists. Interviews between students and counselors are confidential and information is not released without the written permission of the student.

Counseling is completely voluntary and the services of the Counseling Center staff are available to all regularly enrolled students without charge and to spouses of students who have purchased activity tickets. Specialized referral services are available for students who have serious personality problems.

Specialized services are available for mature students in the Continuing Education programs, and in the areas of human sexuality, weight control, biofeedback, career planning, and veteran's testing. Counseling staff members are also available for consultation with university faculty and staff and as resource persons in university classes.

SPEECH AND HEARING CLINIC-The Speech and Hearing Clinic, located in the basement of the Auditorium Building, provides clinical services for students possessing voice, rhythm, articulation disorders, or hearing problems.

Any student who feels the need of help concerning a speech or hearing problem is encouraged to visit the clinic at any time. Students are occasionally referred to the clinic for remedial services by classroom professors, especially if the problem might interfere with a teaching career.

STUDENT HEALTH SERVICE-The university provides medical care for currently enrolled students through the Student Health Service. Medical advice and treatment for current illnesses and preventative medicine are provided by a well-qualified staff of physicians, nurses, and technicians at the Health Center. Major surgery and dental services are not available; however, the staff furnishes supervision and aid in obtaining these services when needed. A charge is made for laboratory work, X-Rays, medicines, and certain examinations and procedures.

The Health Center is open from $8 \mathrm{a} . \mathrm{m}$. to $5: 30 \mathrm{p} . \mathrm{m}$. , Monday through Friday, and from 9 to

11 a.m. on Saturday when university classes are in session. When the Health Center is closed, arrangements have been made for emergency coverage through the emergency service of Allen Hospital in Waterloo.

Medical history and physical examinations are no longer required for entrance to the university. The Health Center, however, requires that students provide a short medical history, showing evidence of a tuberculin skin test within one year, before they are eligible for treatment. In some cases it may be necessary to have a complete medical history and physical examination before treatment can be carried out. If the student desires, this examination can be completed at the Health Center. There is a charge for this service.

It is recommended that all students have current immunization against diphtheria, tetanus, and poliomyelitis.

Almost all private Health and Accident Insurance policies cover members of a family as long as they are full-time students. For those who do not have health and accident insurance, a group plan is available through the university on a voluntary basis to all full-time students. Information on the cost of this insurance may be obtained from the Health Center. No student should be without insurance coverage.

OFFICE OF CAREER PLANNING AND PLACEMENT-The Office of Career Planning and Placement is organized for the purpose of providing pertinent information and counseling for students regarding careers and employment opportunities. The office staff assists prospective graduates and alumni in obtaining employment in positions in accordance with their qualifications and personal interests and in developing satisfying careers. Registration is not a requirement but is strongly recommended prior to graduation.

To be eligible for placement service, an undergraduate must have completed 30 semester hours at this university or must be in the final year of the teacher education program. Registrants must qualify for recommendation by the university for an initial teaching certificate, or for an additional endorsement or approval. On the graduate level, the student must have been admitted to candidacy for an advanced degree or qualify for an additional endorsement approval and have completed $\mathbf{1 0}$ semester hours at UNI.

The Office of Career Planning and Placement provides students with current career information, labor market trends, employment opportunities in teaching, government, business, and industry. Personal and group counseling sessions are available for all students for assistance in career planning and job hunting techniques.

There is no charge for consulting with office staff regarding career or placement concerns. There is a $\$ 7.00$ fee for individuals who wish to register with the office by establishing a set of credentials.

## Student Financial Aid

Student employment and financial aid at the University of Northern Iowa are handled by the Director of Financial Aids. A brochure on financial aids, which includes information on employment, loans, grants, and scholarships, may be obtained from the Director of Financial Aids, University of Northern Iowa, Cedar Falls, Iowa 50613.

## Employment

Many students earn a part of their expenses while attending the university. All possible help will be given to students who need to secure part-time employment. However, until the class schedule has been arranged on registration day and the hours which the student will have available for work are known, definite employment arrangements cannot be made. No fee is charged for this service, but the student is required to maintain the university standards as to health and scholarship. Appointments to work on campus are made for one semester and must have the approval of the department supervisors for renewal.

A student is cautioned not to attempt much outside work during the first semester of residence. Full time is needed to make adjustment to the new environment, to engage in extracurricular activities, and to attain excellence in scholarship. Fifteen hours a week of outside work is considered maximum. If outside work in excess of fifteen hours a week must be done, the number of credit hours carried should ordinarily be reduced accordingly. A student should inform his adviser of his outside work since this information will help in arranging a suitable schedule.

The College Work-Study Program has helped secure jobs, both on and off campus, for students from low-income families. To be eligible to participate in the College Work-Study program, a student should be from a family that is unable to contribute a significant amount to the student's expenses. The Work-Study jobs are handled in the same way as other campus jobs. The Director of Financial Aid selects eligible students for this program.

## Loans and Grants

NATIONAL DIRECT STUDENT LOANS are available to students who are on a continuous program and who meet certain standards of need. These loans are made as funds are made available. Students may borrow a combined total of not more than $\$ 2,500$ during the first two complete years and an aggregate of $\$ 5,000$ as undergraduates. This loan fund has some advantage for those entering teaching because cancellation can be earned under certain circumstances.

FEDERALLY INSURED STUDENT LOAN-Under the Federally Insured Student Loan Program a student may borrow from a lending agency up to $\$ 2,500$ per year. Federally Insured Loans are interest free to students who can show they used the loan to attend a university. Repayment begins after the student leaves college with up to ten years allowed for repayment. The major objective of this program is to make loans available to any student who desires a loan. Interested students should write to the Director of Financial Aids.

SUPPLEMENTARY EDUCATIONAL OPPORTUNITY GRANTS—Supplemental Educational Opportunity Grants (which do not need to be repaid) are available, within the limitations of the funds available, to undergraduate students with exceptional need. Eligible students enrolled on a full-time basis may receive a Supplementary Educational Opportunity Grant for each year of college for a maximum of four years. Grants range from $\$ 200$ to $\$ 1,500$ per year, but cannot be more than one-half of the student's need.

BASIC EDUCATIONAL OPPORTUNITY GRANTS-This program is designed to provide financial assistance to those who need it to attend the university. The maximum award available is $\$ 1,400$ minus the amount expected as a family contribution. Application is made directly to a central processing agency, known to high school counselors. Questions may also may be directed to the Director of Financial Aid, University of Northern Iowa.

## Scholarships

STUDENT AID SCHOLARSHIPS are available each year to approximately 500 students. All applicants must be legal residents of Iowa, possess those qualities of character, personality, and academic ability essential for success at the university and need aid in financing their education.

The Student Aid Scholarships are in the form of partial remission of fees and are authorized by the Iowa State Board of Regents. There is no limitation on the number of awards that may be made to graduates of a particular high school or to students of any county.

To aid in determining academic ability, scores on the American College Tests are required of each applicant. These tests are administered at various times and places throughout Iowa. Notices of the dates and places where these examinations will be given are available from high school principals and counselors.

To aid in determining the financial status of the student and his family, every applicant for a Student Aid Scholarship is required to have his parents complete a form giving specific information concerning the family's economic position, including assets, liabilities, and income (Parent's Confidential Statement which is part of the scholarship service of the Education Testing Service, or Family Financial Statement).

MERIT AWARDS-A number of merit awards are available each year for new students coming directly from high school and those transferring from two-year colleges who have maintained excellent academic records. Students are selected without reference to financial need. There is no special application necessary. All admitted students who meet the general selection criteria are considered.

ART FAIR SCHOLARSHIPS are awarded annually to two high school seniors interested in becoming art teachers. Their value is the same as that of the Student Aid Scholarships.

IOWA INDUSTRIAL EDUCATION EXPOSITON SCHOLARSHIPS are awarded annually to high school seniors or Iowa area school or community college students interested in majoring in one of the five major programs offered in the Industrial Technology Department at the University of Northern Iowa. These grants are made on the basis of the student's academic record, potential for success in industrial or industrial education positions, and an entry submitted at the Iowa Industrial Education Exposition held each spring on this campus. These grants provide a Student Aid Scholarship for four years. The value and regulations governing these awards are the same as for Student Aid Scholarships.

HOME ECONOMICS scholarships are awarded to two high school seniors interested in becoming home economics teachers and attending the University of Northern lowa to prepare for such a career. Further details concerning these scholarships may be obtained by writing to the head of the Department of Home Economics.

UNI ATHLETIC GRANTS-IN-AID AWARDS are provided by contributions from alumni, gate receipts, businessmen in Waterloo and Cedar Falls, and other friends of the university. To be considered for this award, the student must be eligible for admission and must be recommended by the university coach of his sport and the athletic director.

SCIENCE SYMPOSIUM AWARDS are made to high school seniors ranking highest on examinations in the areas of biology, chemistry, and physics given each year on this campus. These grants provide cash and/or Student Aid Scholarships for four years. The value of and regulations governing these awards are determined on a yearly basis.

OTHER FRESHMAN SCHOLARSHPS-A number of other scholarships are awarded to entering freshmen. These include the Leslie I. Reed Memorial Scholarship, the University Book and Supply Scholarships, the C. A. Boehmler and Katherine S. Boehmler Memorial Scholarship, the Viking Scholarship, the McDonald Scholarship and Loan, the Alison E. Aitchison Scholarship,
the Dickey Memorial Scholarship, the Anton Nielsen Scholarship and the Kappa Delta Pi Scholarship. Applications for these awards are made on the same forms as for a Student Aid Scholarship.

SCHOLARSHIPS AND AWARDS are also available to students who have been in attendance at the University of Northern Iowa. These include the Bartlett-Freeland Debate Award, The Alpha Delta Kappa Scholarship, the Mr. and Mrs. W. Anthony Scholarship, the James Clark Memorial Scholarship, the William P. Davidson Memorial Scholarship, the Arthur D. Dickinson Memorial Scholarship. The Martin J. and Cora G. Nelson Scholarship, the Alice O. Gordon Bequest, the Ida M. Wilson Scholarship, the Louis E. Begeman Memorial Scholarship, the Faculty Memorial Scholarship, the Faculty Men's Club Scholarship, the University of Northern Iowa Foundation Founders Award, the Dale F. Groote Industrial Arts Scholarship, the Mary Wheat Graves Award, the Kenneth L. Hansen Memorial Scholarship, the T. C. Holy Award, the Charles T. Leavitt Economics Scholarship, the Michel Scholarship, the Furniss and Mary W. Lambert Scholarship, the Bertha Martin Memorial Scholarships, the Cora G. Nelson Memorial Art Scholarship, the Anna M. Nielsen Music Scholarship, the Ann Moline Organ Scholarship, the May Smith-Amy Arey Kindergarten-Primary Award, the Pi Tau Pi Memorial Scholarship, the James Scott Memorial Scholarship, the Hazel Strayer Memorial Scholarship, the Student ISEA Scholarship, the Irene M. Thompson Scholarship, the Sigma Alpha Iota Awards, the Theta Alpha Phi Alumni Award, the Pi Gamma Mu Award, the Phi Mu Alpha Sinfonia Scholastic Award, and the Purple and Old Gold Awards.

THE WILD AND WHITE AWARDS are made to an upperclass student majoring in the Department of Physical Education for Women.

THE MERCHANT SCHOLARSHIP is awarded to a graduate of the University of Northern lowa who plans to enter graduate school with the intention of obtaining a graduate degree. Ordinarily the award is made to a student who has been enrolled in a graduate school and has done superior work at the graduate level.

THE MARY JENSEN SHACKELFORD AWARD, established in 1968, is available to graduate students at the University of Northern Iowa. Preference is given to applicants seeking a Master of Arts in Education degree; however, the award is open for any area of graduate study at UNI. To be eligible, a student must have at least six hours of graduate work at this institution with a minimum grade point average of 3.0 and desirable personal and professional qualifications as determined by the selection committee. Each award is for $\$ 500$ and will be made to a full-time graduate student for the regular academic year only. Additional information on the award may be secured at the Office of the Dean of the Graduate College as well as the Office of the Director of Financial Aids.

Note: Explanatory materials and application forms for the above scholarships are available in the Office of the Director of Financial Aids at the university. The deadline for making applications is March 1. Students are encouraged to make application for the awards any time after the start of the first semester of their senior year if they are high school students, or the start of their sophomore year if they are junior college students. By filling out either the Parents Confidential Statement or the Family Financial Statement every applicant will be considered for every award for which he might be eligible. Applications received after March 1 will be considered only if all the scholarships have not been awarded to applicants applying before March 1. Additional forms and information may be secured from the Director of Financial Aids.

## Student Activities and Honors

Extracurricular activities are planned and fostered at the University of Northern Iowa because of the signifiant contribution these activities make to the education of the student. The university maintains an extensive program of extracurricular activities including athletics, dramatics, publications, forensics, music, social life, artists series, student organizations, and interest groups.

ATHLETICS-Various intercollegiate sports are available and extensive programs in intramural sports are conducted for both men and women.

The university engages in intercollegiate athletic competition in football, basketball, baseball, track, wrestling, tennis, golf, gymnastics, softball, field hockey, and volleyball. For the nonparticipant in intercollegiate sports, the activities provide recreational value. For the participant, these provide general educational value and constitute a laboratory for the preparation of future high school athletic coaches.

DRAMA/THEATRE-During the year at least four major productions, including a young people's presentation, are sponsored by the Department of Speech. In addition, about a dozen student-directed, one-act plays are also produced on campus. Any student is eligible to audition for a part in these productions. Each summer, Theatre UNI produces three plays, including a musical, in repertory in the J. W. Maucker Union.

FORENSICS-The forensic program includes debate, discussion, and extemporaneous speaking. Participants engage in several meets with representatives of other colleges and universities. This program is sponsored by the Department of Speech, and it welcomes participation of all students.

MUSIC-Musical organizations include the marching band, the symphonic band, the concert band, the jazz bands, the symphony orchestra, various instrumental ensembles, the concert chorale, the women's chorus, music theater, and men's glee club. Although the music activities are sponsored by the Department of Music, any student is eligible for participation through auditions.

During the year numerous recitals and concerts by faculty, students, and off-campus artists afford the student opportunities for hearing the best in music.

SOCIAL LIFE-The social life at the University of Northern lowa is a flexible program designed to meet the current interests and needs of the student body and the university community. Opportunities for social life are offered in many forms including dances, community service projects, films, art shows, coffees, forums, and travel shows. Many of these activities take place in the Maucker Union which is the center of campus social life.

STUDENT GOVERNMENT-The student government associations include the UNI Student Association, the Residence Halls Association, the Interfraternity Council, Pan Hellenic, and the Union Policy Board.

THE UNISA SENATE-The Senate is the legislative branch of UNISA. The executive members include the president, administrative vice-president, academic vice-president, secretary, and business manager. Elected senators are chosen on a population basis from university housing, offcampus housing, and the student body at large. Non-voting members include one representative of the Residence Hall Association, Married Student Housing, Graduate Students, the Senate adviser, and the UNISA president. The UNISA Senate endeavors to promote cooperation between students and faculty, to seek solutions to student and university problems, and to represent the entire student body in matters affecting student interests. The Student Senate sponsors the selection of outstanding seniors for the Purple Key honor awards.

UNION POLICY BOARD-The Union Policy Board of the Maucker Union is composed of 10 students and eight non-students. The Board recommends policies and regulations for the operation of the Union and coordinates the programming events which are sponsored by the Union. In addition, it reviews fiscal matters and makes recommendations pertaining to the budget. Its officers are composed of a president, vice-president, and secretary. The president and vicepresident must be students. The student membership of the Board is elected in all-campus elections, appointed by UNISA, and appointed by the Policy Board.

Throughout the academic year the Union Policy Board may discuss and decide on issues ranging from building operating hours to a review of programs in the Coffee House. During the summer months a committee is usually appointed to oversee the operation of the Union.

INTEREST ORGANIZATIONS-Numerous organizations sponsored by departments and specialized interest groups provide students the opportunity to become better acquainted with other students and faculty as well as to explore and perpetuate interests outside the classroom. Many of the organizations have no membership requirements other than an active interest in the work for which the club exists and regular attendance at the meetings. Participation in such organizations broadens the individual and helps him to become acquainted with new ideas.

HONOR ORGANIZATIONS-Superior achievement in various lines of education work is recognized by membership in the following honor organizations.

Beta Beta Beta (Biology)
Chimes (Junior Women Scholarship and Leadership)
Delta Sigma Rho (Debate)
Gamma Theta Upsilon (Geography)
"I"' Club (Intercollegiate Athletics)
Kappa Delta Pi (Education)
Kappa Mu Epsilon (Mathematics)
Omicron Delta Epsilon Zeta (Economics)
Phi Alpha Theta (History)
Phi Delta Kappa (Education)
Phi Mu Alpha Sinfonia (Music)
Phi Upsilon Omicron (Home Economics)
Pi Gamma Mu (Social Science)
Pi Omega Pi (Business Education)
Purple Arrow (Freshman and Sophomore Women Scholarship)
Sigma Alpha Iota (Music)
Sigma Delta Phi (Spanish)
Theta Alpha Phi (Drama)
Theta Theta Epsilon (Home Economics)
Tomahawk (Independent Sophomore Service)
Torch and Tassel (Senior Women Scholarship and Leadership)
SOCIAL ORGANIZATIONS-There are six sororities and five fraternities on the campus; all have national affiliations. Although membership in these organizations is by invitation, all of the social fraternities and sororities at UNI retain local autonomy in the selection of new members. All of the sororities and fraternities strive for the social and personal development of their members and for their growth as responsible scholars and citizens in the university community. The activities of the sororities are coordinated through Pan Hellenic; those of the fraternities, through the Interfraternity Council.

RELIGION-There are numerous opportunities for the nurture and maturing of the religious life of the student at UNI. There are planned religious activities, lectures, seminars, student religious foundations and organizatons, and the factual study of religion by way of courses in the
curriculum. In addition, there are opportunities for religious counsel and worship in the churches and centers in the campus area.

STATION KCRS-The university radio service, Station KCRS, is a student owned and managed AM carrier current radio station which broadcasts at 970 KHz and serves students living on campus. KCRS broadcasts music, national and campus news, student programs, and UNI sporting events. Station studios and offices are in Maucker Union.

STUDENT PUBLICATIONS-The Northern Iowan, a semi-weekly newspaper, and the UNI Magazine are student publications on the UNI campus. The Board of Student Publications, a committee consisting of five students and four faculty members, establishes basic policies for publications under its jurisdiction. The Board appoints the executive editors for each of the student publications, which are advised by staff members of the Office of Public Information Services.

CAMPUS APPEARANCES BY PROFESSIONAL PERFORMERS-Each year the university brings to the campus a number of nationally recognized performers who present a series of programs. A student-faculty committee is appointed to select the performers who are invited to appear. In planning the programs, the committee keeps in mind the interests of students and their educational and recreational needs. Students may obtain tickets to any or all of the series at a greatly reduced price.

The four or five programs which comprise the annual Artists Series typically present ir:dividuals, orchestras, or companies from the fine arts of classical music, the theatre, and dance. The Chamber Music Series offers concerts by three or four chamber music ensembles throughout the year. From time to time during the year vocalists and instrumentalists from the popular music field are presented on campus.


## University Facilities and Educational Services

THE LIBRARY-The University Library is located at the center of the campus. First occupied in 1964, the building has just been expanded to double its original size and has been almost completely refurbished. It now has a capacity of $\mathbf{6 0 0 , 0 0 0}$ volumes and provides seating for 1,600 persons.

As of July 1, 1975, book collections totalled 426,846 volumes, including a well selected reference collection of 13,166 volumes. The Library has current subscriptions to 2,842 periodicals and 50 newspapers, with most periodical files complete from their beginning. More than 25,000 volumes of new material are added each year. The Library also has a rapidly growing collection of materials in microform ( 13,234 reels of microfilm, 11,126 microcards, and 138,046 microfiche), as well as 19,429 maps and 4,730 albums of recordings. As a selective depository for United States government publications, thousands of such items are added annually to a collection numbering more than 153,301 items at present. Of special interest to prospective teachers is a Youth Collection of 13,317 volumes-a representative body of elementary and secondary school library materials.

A full-time staff of 56 (including 20 professional librarians) and more than 150 part-time, student assistants and other hourly employees provides a public service week in excess of 102 hours. Among special facilities and services available are typing and group study rooms, faculty studies, Graduate Study Room, numerous lounges of various types, Art and Music Room, Documents and Maps Room, Special Collections Room, Microforms Room, Browsing Room, special facilities for blind students, Career Collection, calculators, photocopiers, and electronic carrells for listening and viewing (cassettes, disc recordings, tapes, etc.).

MAUCKER UNION-The Maucker Union, located east of the UNI Library, serves as an informal meeting place for students, staff, alumni, and guests of the university. The unique facilities of the Union are useful for a wide range of activities including cultural, recreational, and conference events.

General services include: a campus information center, check cashing, ticket sales for campus events, meeting rooms, and dining services which range from coffee service to formal banquets. Recreational facilities include a billiards room, table tennis and a crafts center. Informal instruction is also provided in the crafts area. Canoes are available for rent through the Union's Program Office. The building houses the offices of the campus newspaper and student government groups.

Social and cultural activities include art exhibits on a regular basis, weekly movies, a series of informal "mini courses" and a comprehensive program of outdoor recreation activities. The Union is financed through fee monies and income-producing services within the building.

THE COMMONS-The Commons serves the university community in a variety of ways. The primary function of the building is to provide a food service for the residents of Bartlett and Lawther halls; however, facilities are available for movies, dances, and forums which may be scheduled from time to time.

The Georgian Lounge (on the main floor) is used for teas and receptions, and is a place where students can relax during the day or evening. Across from the Georgian Lounge is the ballroom, a multi-purpose room with facilities for banquets, movies, dances, and lectures. Also on the first floor are the food service administrative offices. The general dining areas and kitchen are located on the ground floor.

The facilities of The Commons are open to students, staff, and campus guests. The building is open from 6:30 a.m. to 11 p.m. Sunday through Thursday, and remains open until 1 a.m. on Friday and Saturday.

THE MUSEUM-The University Museum, located in the Plant Service Building on 31st Street west of Hudson Road, is used extensively as an educational resource by both university
classes and area schools, and as a cultural facility by local organizations and individual visitors.
Museum collections embrace four subject categories: geology, biology, anthropology, and history. The geology collection consists of some $\mathbf{2 8 , 0 0 0}$ specimens, and the bird collection includes most birds indigenous to the midwest as well as some exotic, rare, and extinct birds. Large and small mammals, reptiles, fish, arthropods, and marine invertebrates, including 39,000 shells of worldwide distribution, are a part of the biology collection. American, Iowa, and local history are represented from colonial times to the present by a wide variety of artifacts and printed documents. A large and elegant demitasse collection includes pieces from the world's finest china factories in the past several centuries. The anthropology area, which began with a collection of Indian arrowheads, axes, mauls, and Pueblo pottery, is at present the most rapidly expanding area at the museum and includes important collections from Africa, Asia, the Pacific islands, and South America.

The Museum is open, free of charge, from 9 a.m. until noon and from 1 to 4 p.m. Monday through Friday throughout the year, and from 2 to $4: 30$ p.m. two Sundays a month from September through May and one Sunday a month in June and July. It is closed on legal and university holidays. Although large groups such as classes and clubs are asked to telephone or write the Museum for appointments, all other visitors are invited to come without appointment any time the Museum is open.

THE EDUCATIONAL MEDIA CENTER-The primary function of the Educational Media Center is to provide a variety of media, equipment, and services for the total university. The Educational Media Center consists of seven, closely related areas-the Audio Production Services, the Audio-Visual Services (including the Audio Listening Center), the Communication Center, Graphics and Photographic Services, the Media Laboratories, Motion Picture Production Services, and Television Services.

Audio Production Services provides opportunities for professional sound recording, mixing, and editing in studio or on location. Located on the third floor of the Auditorium, this service is equipped to produce high quality master tapes in both reel-to-reel and cassette formats.

Audio-Visual Services, located on the first floor of the Commons, is the center for universitywide acquisition and distribution of media materials and equipment. The A-V Center maintains a software library consisting of 8 mm and 16 mm films, filmstrips (both sound and silent), audio tapes, records, and slide programs. Equipment available includes various types of projectors, audio recorders, record players, and accessories necessary to make just about any presentation possible. A complement of previewing equipment is also available in the A-V Center for individual and small group use. A 48 -station Audio Listening Laboratory is also available for large or small group and individual use.

The Communication Center in the Education Building utilizes a unique color television system to distribute all types of audio-visual media to every classroom and laboratory in the building. The Center also contains a color television studio and control room for the origination of professional color television programming. Five large group lecture halls contain the latest in multi-media utilization systems. Each lecture hall contains a multi-image rear screen projection system remotely controlled from an electronic podium.

Graphic and Photographic Services, located on the ground floor of the Commons (west), provides diverse systems for the design and production of media materials. Almost any type of audio-visual material can be produced locally to assist faculty and staff in implementing instruction. Examples of these materials are overhead transparencies, posters, charts, reproduction copy for offset, printed learning packages, three-dimensional models, displays, photographs, and slides.

The Media Laboratories, located on the second floor of the Commons, provide facilities, equipment, and self-instructional programs for all students and faculty who want to produce their
own instructional materials or learn the operation of a wide variety of audio-visual equipment. In addition, a media supply room houses materials available for purchase.

Motion Picture Production provides a university-wide service in filmmaking, including budgeting, production planning, filming, titling, limited animation, and sound recording. Two studios and an editing room have been established in the Commons for on-campus production activities.

Television Services provides four-fold capabilities to the university community. A professional television studio located on the third floor of the Auditorium building is connected to five large classrooms all equipped with high quality television monitoring facilities. A smaller classroom studio with all equipment remotely controlled can be scheduled for recording of stu-dent-teacher performance and other classroom activities. Two previewing areas, for both small and large group viewing of prerecorded video tapes, are also available in both the Auditorium and the Education Center.

CURRICULUM LABORATORY-The Curriculum Laboratory is a research facility where pre- and in-service teachers and administrators can examine and evaluate a wide range of curriculum materials.

Materials displayed in the Curriculum Laboratory include curriculum guides and resource units, research monographs, learning packets, tests, free materials, sample classroom periodicals, education journals, pictures, textbooks, professional books, enrichment reading, standard references, kits, and games.

Services provided by the Curriculum Laboratory include large and small-group orientations, consultative services, bibliography preparation for faculty, photocopying, classroom presentation by publisher's representatives, special displays, as well as numerous other services.

The Curriculum Laboratory is open during fall and spring semesters from 8 a.m. to 10 p.m. Monday through Thursday, 7:45 a.m. to 4:30 p.m. on Friday, 9 a.m. to 12 noon on Saturday, and 6 to 9 p.m. on Sunday. Hours for the summer session are announced at the beginning of each session.

MALCOLM PRICE LABORATORY SCHOOL-Located on the north edge of the campus, Price Laboratory School serves as a direct experience laboratory for professional education programs of the university. The school provides a comprehensive educational program for a multi-racial student body of 750 pupils in nursery school-kindergarten and grades one through twelve.

In addition to its role as a teacher education laboratory, the Laboratory School is widely recognized for its innovative and experimental programs, and for its work in research and curriculum development. The school is strongly committed to service to the elementary and secondary schools of the state, providing leadership through regularly sponsored conferences, workshops, and publications, and through its heavy involvement in the UNI program of extension and consultant services. The Laboratory School operates on an open-door policy; visitation and consultation are encouraged.

THE EDUCATIONAL CLINIC-The Educational Clinic is part of the Department of Educational Psychology and Foundations. Through its work with individuals and small groups, the clinic performs an important task in the education of regular and special classroom teachers as well as special services personnel such as majors in early childhood education, special education, educational consultants, special learning disability teachers, psychologists, social workers, and counselors. Emphasizing family-school collaboration, the clinic maintains a primarily instructional and behavioral modification approach to learning disorders and questions of adaptability.

The clinic is concerned with a wide range of problems related to preschool enrichment, early identification of gifted and handicapped children, intellectual capability, aptitude, academic achievement, motivation, and personality adjustment. The clinic demonstrates, for teachers and
service personnel, methods of evaluating a child's educational potential, provides an opportunity for service personnel interested in clinical teaching and special education to work with exceptional children in clinical experiences, translates psychological test findings and recommendations into educational terms and procedures, offers consultative services to the schools of lowa at the request of school officials, and performs such research as practicable along lines that provide increased understanding of the learning and remedial processes.

THE SPEECH AND HEARING CLINIC-This clinic offers speech and hearing services to students and others (children and adults) in the vicinity of the university. These clinical services form an integral part of the program of professional preparation in speech pathology and audiology. Majors in speech pathology and audiology at both the undergraduate and graduate levels carry out clinical services under the supervision of the instructional staff of the university. Services offered by the clinic include audiological evaluations, speech and language evaluations, and remedial speech and hearing programs.

The speech and hearing services provided by the UNI Speech and Hearing Clinic have been accredited by the Professional Services Board of the American Speech and Hearing Association. The clinic is located in the ground-level floor of the Auditorium Building.

LEARNING RESOURCE CENTER-The Learning Resource Center, located in Room 144 of the Education Center, offers free tutoring service to all university students in reading, study skills, writing, and course-work subject matter, as well as English language assistance for international students. Experienced tutors work on a one-to-one basis in an informal setting in providing assistance in remedial and developmental writing and reading to help students improve study skills. Students may voluntarily request assistance or may be referred to the Learning Resource Center by faculty members.

Assistance is available on all aspects of writing and on all kinds of writing from short, informal papers to research and term papers. Assistance in speed reading and instructional reading is also available.

TEST SCORING SERVICES-The Test Scoring Services section of Institutional Research contains equipment which processes "mark sense" documents, e.g., multiple-choice answer sheets. The equipment can be used to convert data recorded on "mark sense" documents to a computer-readable punched card. The punched card can then be processed on the university's computer equipment. The staff in Test Scoring Services can assist students, who are under faculty sponsorship, design and process "mark sense" documents.

ACADEMIC COMPUTING SERVICES-The computer services for the faculty and students involved in instruction and research are provided by Academic Computing Services. The services available are among the most advanced in the country, utilizing two large-scale computer systems and an independent, dedicated, interactive computer system. Many students will use the computer facilities as a result of taking courses which require it. Other students, under faculty sponsorship, may also use the services.

ENVIRONMENTAL STUDIES-The Office of Environmental Studies was established at UNI in 1970 and has two specific functions.

1. The office serves as an agency of communication between departments on campus and between educational institutions which are involved in various aspects of environmental studies and act as a stimulator of thinking and action for further involvement at the departmental level;
2. And serves as an office for the promotion of interdisciplinary programs of instruction, research, and service in environmental studies on campus and between campus and community agencies.
The director of the office is the Dean of the College of Natural Sciences. Day-to-day operations are under the supervision of a full-time coordinator.

IOWA LAKESIDE LABORATORY-The three Regents universities, the University of Northern Iowa, the University of Iowa, and the Iowa State University, jointly maintain a field biology station at Lake Okoboji. A scientific advisory board made up of representatives from each of the three state institutions has charge of the program. Unusual opportunities for field studies are available for students and teachers of biology. A variety of courses open to undergraduates and graduates is offered during the summer in two sessions of five weeks each. The Lakeside Laboratory Bulletin, available about February 1, lists the courses to be offered the following summer with detailed directions of enrollment. The courses regularly scheduled at the Laboratory are listed in the courses of the Department of Biology. Further information may be secured by writing to the Department of Biology, University of Northern Iowa. Registration is made through the Registrar's Office, University of Northern Iowa, Cedar Falls, Iowa 50613.

IOWA TEACHERS CONSERVATION CAMP-A field laboratory program in Iowa conservation problems and environmental education is offered at various locations in lowa each summer. Two courses, 84:104 Iowa Conservation Problems I and 84:105 Iowa Conservation Problems II, may be offered. Each three-week course carries three credit hours and is open to both undergraduate and graduate students.

The program is jointly sponsored by the Iowa Department of Public Instruction, the Iowa Department of Soil Conservation, the University of Northern Iowa, and the State Conservation Commission. Further information and registration materials may be secured by writing to the Department of Biology, University of Northern Iowa, Cedar Falls, Iowa 50613.

STUDY ABROAD-The University of Northern Iowa has several programs for study abroad. These include annual foreign language summer institutes, College of Business and Behavioral Sciences study seminars in Europe, and a continuing exchange program with the Universidad Pedagógica Nacional in Bogotá, Colombia. The foreign language programs are conducted in France, Germany, Austria, and Spain.

The Summer Institute in Austria and Germany (for teachers of German) is an eight-week program designed for those teachers who (1) need extensive training in understanding and speaking German, and (2) do not wish to see Austria and Germany as tourists but who would like to live among the people of those countries and have a personal contact with these people. Each participant will study and live with an Austrian family for six weeks. Eight semester hours of graduate credit may be earned. Classes will be held at the Teachers' College in Klagenfurt, Austria. This institute includes a two-week "Culture and Civilization" tour of Austria.

The Summer Institute in France (for teachers of French) is an eight-week program held in Angers, France. The institute program provides for eight semester hours of credit and is designed for teachers who (1) need intensive training in understanding and speaking French, and (2) would like to live among the French people and make personal contacts with French families in a French community rather than to see France as a tourist. Each participant will study and live with a French family in Angers for five weeks. Classes will be held daily at the Universite Catholique de l'Ouest, along with field trips and study tours. A 20-day period of guided travel throughout France is also part of the institute.

The Summer Institute in Spain (for teachers of Spanish) is an eight-week program held in Soria, Spain. The institute program provides eight semester hours of credit and is designed for primary and secondary teachers of Spanish who want intensive training in oral skills and who would like to have personal contact with the Spanish people. Each participant will live with a Spanish family in Soria for approximately six weeks while studying formal classes. A two-week study tour of areas of historical and cultural interest will follow the formal course work, including time to get to know Madrid.

The Regents' German Program in Austria is a nine-week program conducted jointly by the three Iowa Regents' universities in cooperation with private colleges in lowa. Classes are held in
the Austrian Alps and at the International Hochschulkurse of the University of Vienna. There wilt be approximately eight weeks of instruction on three levels-intermediate, advanced, and very advanced - followed by a 10-day cultural tour. This program is open to undergraduate and graduate students. Up to 10 semester hours of credit may be earned. Minimal admissions requirement for German is 12 semester hours of college-level German or the equivalent.

The Regents' Program in France is a nine-week program sponsored jointly by the three Iowa Regents' universities. Students will spend five weeks in Angers, France, where they will attend courses on the campus of the Université Catholique de l'Quest. While in Angers, students will live with French families. This stay will be followed by two weeks in Paris. The program is designed primarily for undergraduates and offers up to nine semester hours of credit, plus one week of independent study and travel.

The Regents' Hispanic Institute is an eight-week institute sponsored jointly by the three Regents' universities of lowa in cooperation with the Provincial Delegation of the Ministry of Education and Science of Burgos, Spain. Designed primarily for undergraduates, the program offers up to eight semester hours of credit through six weeks of study in Burgos and two weeks of touring other parts of Spain. While in Burgos, the students will live with Spanish families.

Business and Behavioral Sciences Foreign Study Seminars are sponsored by academic units within the College of Business and Behavioral Sciences. Past and planned study tours include both summer and semester-length programs in Europe and the Far East. Programs are conducted in cooperation with foreign universities, institutes, and business firms. Seminars are coordinated by the college Programs Abroad Committee, and may be taken for either undergraduate or graduate credit.

The University of Northern lowa has a continuing exchange program for students with the Universidad Pedagógica Nacional in Bogotá, Colombia. Special summer programs for undergraduate students are held on the campus of each of the two universities in alternate summers with six to eight weeks of formal study combined with guided travel and activities to acquaint students with the culture and people of both this country and Colombia.

For additional information on these programs for study abroad, please write the Office of the Registrar, University of Northern Iowa.


EDUCATIONAL OPPORTUNITY PROGRAMS-The University of Northern Iowa places a high priority on the higher education of low-income and minority group students. To fulfill this commitment to such students, the university has established the Office of Educational Opportunity Programs and Special Community Services with the Director in the Office of Academic Affairs. Under Educational Opportunity Programs, efforts are coordinated and designed specifically to meet the educational, social, and financial needs of project students, and a primary goal is the successful completion of the student's college career.

Four working components make up the structure of Educational Opportunity Programs and Special Community Services: UNI-CUE-the Center for Urban Education, Educational Talent Search-Upward Bound, the On-Campus Educational Opportunity Program, and the Ethnic Minorities Cultural and Educational Center. Each component program is administered by individual program directors.

UNI-CUE (the University of Northern Iowa Center for Urban Education) is located in the heart of the urban area of Waterloo, Iowa, and is designed to increase the educational opportunities of disadvantaged people of all races. It works closely with the various university departments in the training of future teachers for work in urban areas. In addition to offering tutorial assistance to students, the staff counsels with students and provides academic advice. The Center is also the site of college-level classes for members of the community, sewing classes for children and adults, and other community service activities. Five evenings a week Nation Time, aired on university radio station KUNI, brings contemporary music, poetry, news, and interviews on subjects of public interest to the black community of Eastern Iowa. In a separate building, a program for the arts offers art, dance, drama, and music for students and area residents.

The Educational Talent Search-Upward Bound program is funded by the U.S. Office of Education. Educational Talent Search is the primary recruitment vehicle of E.O.P. It is designed to encourage disadvantaged young people to continue their education, and the staff searches out youth in financial, cultural, or academic need and refers them to colleges, universities, and vocational schools. These young people include high school and college drop-outs, welfare recipients, and others who seek help. Educational Talent Search staff assists the eligible lowincome and minority group student in completing the higher education information application and financial processes and provides counseling and guidance in establishing the educational needs and goals of program students. Although Talent Search does not provide financial assistance, the staff attempts to place students in schools that are willing to provide financial as well as academic aids.

Upward Bound is designed to motivate the non-college bound student toward undertaking a college career. Students eligible for Upward Bound are those area tenth and eleventh grade, lowincome, and minority-group high school students who are capable of succeeding in higher education but who do not have the educational background which would traditionally indicate college success. The Upward Bound Program has two basic phases to its total program. The initial "summer session" phase, which is held on campus, includes classes structured for college preparation and a variety of recreational, cultural, and enrichment activities. The second phase is the "academic year" while the student is still in high school; this provides a monthly stipend to program students and needed academic and personal counseling. To program graduates, Upward Bound gives its full support and assistance in securing higher educational placement.

The On-Campus E.O.P. program offers counseling, tutoring, and other appropriate supportive services to students who are admitted to the university through the E.O.P. in an effort to assure the educational success of these students. These supportive services include assistance with specific educational and financial needs of the student along with assisting in the setting up of the academic program of the individual student. E.O.P. counselors also provide advice and direction on social and personal problems which might interfere with the student's academic progress. All of the academic supportive services available through the On-Campus E.O.P. may be used by any

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university student; however, only program students may receive financial assistance through the program.

The Ethnic Minorities Cultural and Educational Center was established on campus to provide a physical atmosphere for effective analysis of minority cultures and to further cross-cultural and racial understanding through participation in its programs by all segments of the UNI-Cedar FallsWaterloo communities in a totally minority environment. The Center has a variety of actual instructional and performance methods for displaying various minority cultural and art forms. The Center staff provides direction to the Nation Time Radio Experience which provides an introduction to minority music as well as being a strong daily link between the university and the community. The Center's library facilities provide a reference point for those interested in examining literature, records, and tapes of minority cultures.

Inquiries regarding the E.O.P. and Special Community Services should be made to one of the following:

UNI-CUE, 715 East 4th Street, Waterloo, Iowa 50703
Talent Search, 715 East 4th Street, Waterloo, Iowa 50703
Upward Bound, 715 East 4th Street, Waterloo, Iowa 50703 (academic year)
Baker Hall, Room 148, University of Northern Iowa, Cedar Falls, Iowa 50613 (summer only)
On-Campus E.O.P., Baker Hall, Room 151, University of Northern Iowa, Cedar Falls, Iowa 50613
Ethnic Minorities Cultural and Educational Center, University of Northern Iowa, Cedar Falls, Iowa 50613
Inquiries not related to any specific area should be directed to the Director of E.O.P. and Special Community Services, Office of Academic Affairs, University of Northern lowa, Cedar Falls, Iowa 50613.

INDIVIDUAL STUDIES PROGRAM-The Individual Studies Program at the University of Northern lowa is open to undergraduate students who want to reach beyond the ordinary limits of a classroom course. Through this program academic credit is awarded to several different kinds of independent and small-group study. Students read and work alone, or in small groups, in search of self-expression and self-discovery. Students wishing to take advantage of this program need not have high grade point averages, but they are expected to be creative, self-reliant, and ready to accept challenges and take risks.

The Individual Studies Program adds flexibility to undergraduate schedules at the university. The program awards academic credit to unique student interests-individual pursuits which lie either between or across several disciplines or in a discipline yet to be defined. Such credit, when appropriate, may be applied to elective hours, the major field, or to general education requirements.

In place of the structure ordinarily supplied by the instructor of a class, or by the staff of a department, the student involved in a course of individual study provides his own structure, choosing a consultant to guide him in the best use of this structure, or he joins mutually interested fellow students in a self-starting or specialized seminar. The course of study, in either case, is no less rigorous than one employed in an ordinary class or major, yet the projects are tailored specifically to the interests of the student. Each individual program reflects the uniqueness of a student's own personal development.

Each semester the Individual Studies Program offers a variety of Exploratory Seminars (00:192)-these courses are generally kept small to insure lively and informal discussion. Individual Study Project ( $00: 198$ ) is an opportunity for research, creative work, or experienceoriented study. Interdisciplinary Readings $(00: 196)$ enables the student to develop a program of
readings on a topic not dealt with by one of the university's regularly offered courses. Group independent study (students who wish to study in a common area of interest) is possible through the Self-forming Seminar (00:192, Sec. 1). Individual Studies courses are listed each semester and summer session in the first section of the Schedule of Classes for that session. Information about these courses may be obtained from the Individual Studies office at UNI.

Individual Studies also makes possible a larger use of study opportunities at UNI. By taking a series of courses in this program over several semesters, students may be able to graduate "with Individual Honors." The course Undergraduate Thesis $(00: 197)$ is part of the requirements for students who wish to graduate with this distinction. Special approval is required registering for this advanced independent study course which culminates the program.

The Individual Studies Program gives support to field trips initiated by students, faculty, or seminar groups. Students are encouraged to attend conferences and discover learning situations away from campus. The Individual Studies office has guide books and maps available for planning tours abroad. Unusual expenses for undergraduate theses and larger independent study projects are often subsidized through the program.

An Individual Studies Major and a new General Studies Major, each leading to a baccalaureate degree, are offered by the university under the supervision of the Individual Studies Program. Details and requirements for these majors are given on pages 198 and 199.

The Individual Studies Program is for the self-starters. Students who desire to work in an independent manner and plan beginning a project should talk with the Director of Individual Studies, Baker Hall, UNI.

GENERAL STUDIES PROGRAM-The General Studies program at UNI is a diversified liberal arts program supervised by the Director of Individual Studies and under the jurisdiction of the Individual Studies Board. The General Studies Major enables students to make a wide and varied use of university offerings which can lead to a well-rounded liberal arts education. Because the 45 -hour program requires a minimum of 15 semester hours of 100 -level courses from three of the four undergraduate colleges, the stress of this major is on distribution rather than concentration.

For some students the General Studies Major may provide a broad background for later, more specialized, study or training. Each student is encouraged to develop a program of courses according to his or her needs and interests, exploring a wide diversity as, for example, economics, history, art, philosophy, earth science, and mathematics-or a particular connection might be developed among courses in psychology, biology, educational psychology, and physical education. The 100 -level courses that apply to the General Studies Major are those that normally involve study beyond the introduction to a discipline; however, lower-level courses which are prerequisite to or prepare for more advanced study may be used for elective credit beyond the 45 -hour major requirement and, in some cases, may be applied to the General Education requirement for graduation.

The General Studies Major is not directed toward any particular vocation or for certification to teach, but serves a large need in the area of liberal arts education. Specific details for the program are given on page 199.

ADVANCED PLACEMENT PROGRAM-The University of Northern Iowa participates in the Advanced Placement Program of the College Entrance Examination Board. Through enrollment in special courses in a participating high school, a qualified high school senior may take achievement examinations in one or more academic subjects at the college level. UNI grants college credits in art, biology, chemistry, English, foreign languages, history, mathematics, music, and physics to students who pass examinations with scores of 3,4 , or 5 . Details of this program may be obtained from the Director of Admissions, UNI.

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REGENTS UNIVERSITIES STUDENT EXCHANGE PROGRAM—University of Northern Iowa students may take courses at either of the other two Regents universities for UNI resident credit. Regular, degree-bound students in good standing at any of the three Regents universities may attend another Regents university for a maximum of two semesters (three quarters), and the credits earned at the other university will be counted as resident credit at their home institution. Approval for participation and credit in the exchange program must be obtained well in advance of registration since the department head must approve the acceptance of such credits if these are to apply on the major, and to insure complete processing of the application between the cooperating universities within specified dates for enrollment. Detailed information and application forms for the exchange program are available from the Office of the Registrar, UNI.

COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP)-The University of Northern lowa is a participating institution in the College-Level Examination Program (CLEP). Students who plan to attend UNI and who wish further information on CLEP may write to the Office of Admissions for information. (Information is also available in most high school counselors' offices.) Enrolled students interested in earning credit through CLEP should contact the Office of Institutional Research at UNI for information and dates of examinations. There are two types of CLEP examinations: the General Examinations and the Subject Examinations; both types are given at UNI.

At the present time five General Examinations are given-English Composition, Humanities, Mathematics, Natural Sciences, and Social Sciences-History. The test scores are given with the percentile ranks based on scores achieved by a representative sample of all students at the end of their sophomore year in American colleges and universities. Credit earned by CLEP through General Examinations may be applied only to general education requirements at UNI with the 70th percentile the minimum achievement level for credit. Tests are ordinarily taken early in the freshman year, usually at the time of first registration, but must be completed before registering for general education courses in the subject areas to which the tests apply.

The CLEP Subject Examinations are end-of-course tests developed for widely taught undergraduate courses. Percentile ranks for these tests compare an individual's knowledge of the subject with scores received by regularly enrolled students who have just completed an equivalent course. The minimum achievement level for credit on the Subject Examinations is the 50th percentile using these norms. A list of subject courses for which CLEP examinations may be taken is available from the Office of Admissions.

The General Examinations are given during the orientation and registration programs for new students and during the first week of classes of each semester as well as at other times during the year as set by the Office of Institutional Research. The Subject Examinations are given at least once during each semester, usually on a Saturday near the middle of the term. See 58 for additional information on CLEP, including fees and amount of credit which may be earned through the program.

DIVISION OF EXTENSION AND CONTINUING EDUCATION-The University of Northern Iowa has had an organized extension program since 1913. As an integral part of its total responsibility to the state, the university has a legislative charge to provide public services to assist in the cultural, economic, and social development of Iowa residents. The Division works cooperatively with the UNI staff in providing services to the public schools, business and industry, and other community and professional groups through a variety of programs. Included in Extension and Continuing Education are consultative services, extension-credit work, non-credit classes, conferences and workshops, and publications.

Consultative Service-Members of the university faculty can be made available to share their expertise with teachers, administrators, and other educational agencies involved with the improvement of public education.

COUNSELING: Advisory SERvices for Adults-Increasingly, people of all ages are becoming more interested in available educational opportunities. For adults wishing to begin, or possibly return to educational pursuits either on a full or part-time basis, the Division offers advisory services. Information is available from either the Continuing Education Office or the University Counseling Center.

Correspondence Courses-For people who find it inconvenient to attend campus classes, opportunities to learn are available through correspondence study courses. One may earn college credit toward a degree, work for teaching certificate renewal credit, or simply study an area of personal interest. Correspondence courses do not follow the regular semester time schedule, permitting a student to enroll any time.

Any student fully meeting university admission standards may enroll for correspondence study. Resident students at UNI may enroll for correspondence study provided such concurrent enrollment has been approved by the appropriate college dean (see page 56 ). Only by special permission of the Dean of the Graduate College may one use correspondence study credit to satisfy graduate degree requirements.

Military veterans and Vocational Rehabilitation clients may enroll in correspondence courses and arrange for partial financial assistance from their parent agency.

Currently correspondence courses are offered by fifteen academic departments. A brochure is available upon request to the Division of Extension and Continuing Education.

Extension Classes-Credit class work is offered off campus at many locations throughout the state as a part of the university's instructional program. Factors of distance and staff availability are carefully considered in relation to requests for off-campus classes. There is no distinction between campus and off-campus credit in meeting degree requirements; however, not more than one-fourth of the academic hours needed for an Iowa Teachers Certificate or a baccalaureate degree may be earned through non-resident credit and two-thirds of the credit required for a graduate degree program must be earned in classes taught by University of Northern Iowa staff.

Adult Education Classes-As a service to those who are interested in furthering their education, but not in earning university credit, the Division offers a variety of community classes in the metropolitan area. Classes are established primarily upon request and are open to any adult regardless of educational background. These classes carry no credit, but if the course offered is listed in the university catalog, it may be possible for a person who completes the community class to receive credit in the course by special examination. Fees for comınunity classes are established on the basis of the length of each class and the number of sessions.

The Division of Extension and Continuing Education is available to assist organizations and clubs in planning "continuing education" programs suitable to their needs and interests.

For a list of extension courses, credit and non-credit, or for information on the establishment of such courses, call or write the Dean of Extension and Continuing Education, University of Northern Iowa, Cedar Falls, Iowa 50613.

Publications-Two types of educational service publications are issued: the teaching aid series, and the research and survey series. These publications are distributed at cost; a list of titles and prices is available from the Division of Extension and Continuing Education office.

SATURDAY AND EVENING CLASSES-As a service to persons in the vicinity of Cedar Falls, some resident university courses are scheduled for evening hours and for Saturday mornings. Some of these are especially for graduate students; others are open to junior and senior students; a few are available for freshmen and sophomores. While the selection of courses is made with in-service teachers in mind, other courses are scheduled as the demand seems to justify.

Students who plan to enroll for Saturday and/or evening classes ONLY may register by mail. Mail-in forms are available in the Office of the Registrar upon request. Schedules of evening and Saturday classes are generally available in August for the fall semester and in November for the

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spring semester. Specific instructions for registration by mail are contained in the schedule and on the mail-in registration form.

Students who register for Saturday and/or evening classes in addition to other classes will register for them at the time of the regular class registration, and may not register by mail.

Specific information for each semester's registration is available at the Office of the Registrar.
CONFERENCES AND WORKSHOPS-As a part of the university's program of continuing education many conferences and workshops are held throughout the year. Nationally known leaders in many facets of teacher education as well as in other academic areas are brought to the campus for these events. University credit may be earned in some of the workshops conducted during the summer session.

The Division of Extension and Continuing Education is a focal agency in assisting with the development and coordination of continuing education programs held on campus for various agelevel groups, including many high school-level activities.

EXHIBITS-Exhibits of art, works of both UNI staff and students and touring exhibits, and displays of instructional materials are held periodically. Certain departments of the university sponsor special days for high school students with particular interests.

BROADCASTING SERVICES-Educational, cultural, and informative programs are made available to Iowa television and radio stations as well as broadcast over the University of Northern Iowa's two stereo public radio stations, KHKE (FM) and KUNI (FM). KHKE (FM) broadcasts from a 400 -foot tower at a power of 8,000 Watts while KUNI (FM) broadcasts a totally separate broadcast schedule from a 2,000 -foot TV tower with a power of 100,000 Watts. KHKE (FM) serves primarily the Waterloo-Cedar Falls area while KUNI (FM) serves nearly one-half of Iowa including Waterloo, Cedar Falls, Cedar Rapids, Iowa City, Marshalltown, Dubuque, and Davenport. The studios and office occupy the second floor of the Old Administration Building.

Broadcasting Services, serving under the Dean of the College of Humanities and Fine Arts, provides a comprehensive broadcasting internship program which is coordinated closely with the Speech Department's broadcasting offerings.

OFFICE OF PUBLIC INFORMATION SERVICES-Serving under the Vice-President for University Relations and Development, the Office of Public Information Services has the general responsibility of helping develop public understanding of university aims, policies, and activities, both in the immediate university community and with the public at large. To fulfill this responsibility, the office staff works in close cooperation with the faculty, the administration, and the university students as well as with the press, radio, and TV. The office maintains general news and sports information services, a publications service, and a public relations advisory service.

The public relations service includes advisement of faculty and students in promotion of public events, and consultation with the administrative staff on the public relations implications of university policies. The Director of the Office of Public Information Services assists in the public information program of the State Board of Regents and represents the president of the university in relationship with student publications.

The general news information service interprets the program of the university through daily release of news articles and photographs to the press, radio and television as well as through the preparation of informative articles for special and general interest periodicals. Information files on all aspects of the institution are maintained in order to answer requests and to assist representatives of the press who call or visit the campus seeking background information for news stories or magazine articles. The quarterly Alumnus magazine and the UNI Century, newspaper for parents of students, alumni, and friends of the university are edited in the office.

The publications service supervises the design and printing of the more than 200 booklets,
catalogs, and other publications produced at the university annually. It also services in a consultative capacity to faculty responsible for university publications.

The sports information service keeps the public informed about intercollegiate athletic events through news releases, photographs, radio and television programs, sports brochures, and wall posters.

## Alumni Association of the University of Northern Iowa

The Alumni Association of the University of Northern Iowa was organized in 1879 "to promote the interests of the Alumni of I.S.N.S. (Iowa State Normal School) and to give social and intellectual improvements to its members." One of the early constitutions provided for a literary program of oration, history, and essay, which for many years was presented at the annual meeting on the day preceding spring Commencement.

With the growth and development of the institution, the Alumni Association has developed into a working organization pledged to further the best interests of the university and her graduates. All graduates of the University of Northern Iowa are eligible for membership in the association and are inducted into the organization as a part of the Commencement exercises.

The Alumnus is the association's official publication of alumni and university news, and is published quarterly. The Century is a quarterly tabloid newspaper which is sent to alumni, friends, and parents of students. UNI Alumni Chapters meet annually in many of the major cities throughout the country. Alumni assist the university in many ways, including the provision of financial support to scholarships, facilities, and cultural activities for which state funds are not available (see UNI Foundation below), as well as the recruitment of students, serving on special university committees, and representing the university in public activities.

The Alumni Office now services the records of more than 45,000 living alumni from offices in the new Administration Building. The office provides clerical assistance to the Alumni Chapters, and is a source of information to alumni regarding conferences, workshops, and meetings of special interest on campus. The office also assists university departments in maintaining a continuing relationship with their majors after graduation.

## The University of Northern Iowa Foundation

The University of Northern Iowa Foundation is a non-profit corporation formed in 1959 to assist the university in projects which are vital to its growth and development but are most appropriately financed from private funds. Through its annual giving program, the Foundation provides alumni and friends of the university an opportunity to assist in extending the usefulness of the university, providing that margin of excellence which is characteristic of a university of quality.

As part of the program observing UNI's 1976 centennial anniversary, the UNI Foundation is involved in a 10 -year, Centennial Fund campaign. The first phase of the Centennial Fund Campaign is the construction of the UNI-Dome, a multipurpose facility for university and community use. The second phase will be the construction of a new university auditorium; and the third phase, a program of special acquisitions and projects.

The Foundation is the official channel through which gifts, both large and small, may be given for the benefit of the University of Northern Iowa. Individuals and organizations are assured of continuity of management of such funds and of their being used for the purposes which the donor intended. As a charitable organization, all gifts to the Foundation are tax deductible.
Gifts should be addressed to:
UNI Foundation
Administration Building
University of Northern Iowa
Cedar Falls, Iowa 50613

# University Policies 

## Admission

## ADMISSION POLICIES AND PROCEDURES

A student must have filed an application for admission with the required records and other supporting material, have met all conditions, and have been issued an admission statement by the Director of Admissions before he is permitted to register in the university. Consideration is given to the scholarship, character, and personality of the applicant. Individual students may be required to come to the campus for interview and tests. Those who do not give reasonable promise of success as students at the university may be denied.

The application for admission forms neither require nor invite the applicant to indicate his race, color, religion, or nationality; and the representatives of the university, both on and off campus, encourage or discourage an applicant on the basis of his academic or co-curricular record, scores on standardized tests, seriousness of purpose, statements from teachers, counselors, school administrators, and similar evidences of potential ability to do college work. The registration forms provide a space in which a student may indicate his religious preference by using a coded number. This is to provide information to the directors of the student religious centers. The registrant may leave the space vacant if he desires.

A student should take the following steps in applying for admission to the university. These should be taken as far in advance as possible since admissions may be granted up to twelve months in advance of the opening of the term for which application is being made.
A. Application for Admission. The application for admission form is obtained from the Office of the Director of Admissions, University of Northern Iowa, Cedar Falls, Iowa. Complete the application carefully, and return as indicated on the form. Your request for an application for admission should indicate whether you wish to enroll for undergraduate or graduate study and the semester you wish to enter the university.
B. Application Fee. A fee of $\$ 10.00$ must accompany the application. The fee is not refundable, except to lowans who are denied admission, and is not applicable to later registration fees. The $\$ 10.00$ fee paid with the original application may be applied to a later entry within one calendar year. The fee will be applied to this later entry only if the student notifies the Admissions Office of his change in plans before the beginning of the session for which he originally applied.
C. Application Deadlines. Applicants for admission should submit the required applications for admission and the necessary official transcripts and other required documents to the Director of Admissions at least ten days prior to the beginning of orientation for the session for which the student is applying.
D. High School Record. Ask your high school principal to send a six- or seven- semester transcript if you ARE still in high school and a final report on graduation. If you are OUT of school, ask your principal to send a complete transcript. If you have attended more than one high school, a single report is sufficient if it includes all your work; otherwise, a report will be needed from each high school attended.
E. Transcripts of College or University Records. If you have attended another college or university, an official transcript of record MUST be filed from EACH Institution attended. If you are still enrolled in another college or university, a partial record may be used for considering admission, but a complete record will be required before your admission file is complete.
F. Tests and Interviews. All new undergraduate students are required to take the American College Tests before admission will be granted. The tests are given in all states.

Be certain to specify that your test record be sent to the University of Northern Iowa.
A visit to the campus is encouraged if convenient. In some situations the university may require an interview or additional tests before acting on an application for admission. Students are notified by mail if these are required of them.
G. Health. Applicants for admission to UNI are not required to file a report of a physical examination or prepare a medical history. In the interest of providing optimum health care, the University Health Center recommends that incoming students who have or are experiencing health problems provide the Director of the Health Center with information concerning their situation. (See page 15 for services available through the UNI Health Center.)
H. Housing. A housing card is included with the notice of admission. (The completed card should be returned immediately to the Housing Office.) The card must be completed by all students, including those living off campus. A housing contract is sent to all students applying for university housing, and must be completed, signed, and returned along with the housing deposit.

Note: Admission procedures will be considered completed only when all required papers are returned to the university and all specified fees paid.

All students taking work beyond the bachelor's degree, whether they are studying for an advanced degree or not, are classified as graduate students.

Specific information for the admission of students to graduate study is given on pp. 201-203.

Classification of residents and non-residents for admission and fee purposes for all students is listed on pp. 42.


## PREPARATION FOR UNDERGRADUATE ADMISSION TO THE UNIVERSITY

For admission to the University of Northern Iowa one does not need to have chosen a particular program in high school. However, it is expected that the record of the student seeking admission will be in conformity with the following pattern:
I. Graduation from an approved high school shall ordinarily precede admission to the university. The student who applies for admission to an institution of higher learning shall, in general, have:
A. Completed a balanced program of studies designed to insure a well rounded background of knowledge in basic fields.
B. Developed proficiency in the use of the English language in reading, writing, and speaking.
C. Acquired proficiency in basic mathematical skills.
D. Developed effective study skills and work habits.
E. Developed an adequate intellectual, physical, moral, and social maturity.
F. Developed a sincere interest in further formal education.
II. Those planning to enter the university shall be guided by the following standards in completing their preparatory academic work:
A. EnGLISH-Since the ability to write clearly and to read with understanding and appreciation are essential to success in college, it is highly desirable that the student complete at least three and preferably four units in English, with strong emphasis on writing.
B. Mathematics-Mathematics has much to offer not only as a tool to further learning but as a means of providing basic education. Two and one-half years of study should be the minimum for those planning to attend college. Students planning to specialize in the sciences or in engineering should complete at least two and one-half units and preferably three units or more in mathematics in high school.
C. Social Studies-Social studies such as history, civics, government, economics, sociology, and geography-are basic to the understanding and solution of contemporary problems in the community, in the nation, and in the world. From two to four units may well be devoted to this area by the prospective university student.
D. The Sciences-The field is rich in possibilities for understanding the modern world. A minimum of two units in science is recommended. For those who plan to emphasize science or engineering, three units would be helpful.
E. Foreign Language-The prospective university student should develop a basic reading or speaking knowledge of a foreign language, classical or modern. For most students this would suggest a minimum of two years of study; three or four would be preferable.
F. Art and Music-This field offers opportunity for development in an important area of general education which can contribute much toward individual growth.
G. OTHER SubjEcts-Agriculture, business, home economics, industrial arts, speech, etc., when properly studied, contribute materially to the educational growth of the individual and prepare him for continued study as well as for the more general activities of living. The prospective university student with an interest in further study in a field related to one of these subjects should find one or two years of high school work in it to be particularly valuable.

## GENERAL ADMISSION STANDARDS OF THE STATE BOARD OF REGENTS

## A. ADMISSION OF FRESHMAN STUDENTS

A student desiring admission must meet the requirements in this section and also any special requirements for the curriculum or major of his choice.

He must submit a formal application for admission and must háve the secondary school provide a certificate of high school credits, including a complete statement of the applicant's high school record, rank in class, scores on standardized tests, and certification of high school graduation. The applicant must also submit any other evidence such as a certificate of health that may be required by the individual institution of higher learning.

1. A Graduate of an Approved Iowa High School who has the proper subject-matter background, who is in the upper one-half of his graduating class, and who meets specific curricular requirements will generally be admitted upon certification of graduation, if he applies for admission.

A candidate who is not in the upper one-half of his graduating class may be required to take special examinations and may after a review of his entire record and at the discretion of the Admissions Office: (1) be admitted unconditionally, (2) be admitted on probation, (3) be required to enroll for a tryout period during a preceding summer session, or (4) be denied admission.
2. A Graduate of an Accredited High School in Another State must meet at least the same standards as a graduate of an lowa high school. The options for admission by probation or tryout enrollment may not be open to these students. The university reserves the right to demand higher standards from graduates of out-of-state high schools.
3. A Graduate of a Non-Approved High School must submit all data as required above and in addition must take examinations which will demonstrate his general competence to do successful university work.
4. An Applicant Who Is Not a High School Graduate must submit all data required above in so far as it exists and must take examinations to demonstrate competence to do university work. Evidence of specific competence for admission to a given cirriculum will also be required.

## B. ADMISSION OF UNDERGRADUATE STUDENTS BY TRANSFER FROM OTHER COLLEGES

1. Students from Accredited Colleges and Universities-Transcripts of record are given full value if coming from colleges or universities accredited by the North Central Association of Colleges and Secondary Schools or similar regional associations. For schools not regionally accredited the recommendations contained in the current issue of the Report of Credit Given by Educational Institutions published by the American Association of Collegiate Registrars and Admissions Officers will be followed.
a. Each applicant shall submit an official transcript bearing the original seal and signature of the offical in charge of records from each college or university which the student has attended previously. The student will also submit any other records or letters which the university may require to support his application for admission.
b. A transfer applicant shall be expected to have maintained a " C " average ( 2.00 based on an " $A$ " grade being 4 points) for all college work previously attempted and not be under suspension from the last college or university attended. Students who are not residents of Iowa may be expected to have maintained a 2.25 grade index.

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c. A student who is below the above standards may be permitted to take entrance examinations. If the applicant successfully completes the examinations, he may be admitted on probation.
d. In general, transfer applicants under academic suspension from the last institution attended will not be considered for admission during the period of suspension or if for an indefinite period, until six months has passed since the last date of attendance. When eligible for consideration the applicant will be considered as in "c" above.
e. A transfer applicant under disciplinary suspension will not be considered for admission until a clearance and a statement of the reason for suspension is filed from the previous institution. When it becomes proper to consider an application from a student under suspension, the university must take into account the fact of the previous suspension in consideration of the application. Applicants granted admission under these circumstances will always be on probation and their admission subject to cancellation.
f. Applicants for admission by transfer who do not meet the standards may be denied.
g. Transfer credit from a two-year college will not be accepted if that credit is earned after the total number of hours of credit accumulated by the student at all institutions attended exceeds one-half the number of hours needed for the earning of a baccalaureate degree.
2. Students from Non-Accredited Colleges-The university may refuse to recognize credit from a non-accredited college or may admit the applicant on a provisional basis and provide a means for the validation of some or all of the credit. The validation period shall not be less than one semester and will ordinarily be a full academic year. The university will specify to the student the terms of the validation process at the time of provisional admission. Each student from a non-accredited college will be considered on his merits and his admission or rejection is at the discretion of the admissions officer.
Note: A transfer student who is allowed to enter with any grade point deficiency (at any college previously attended) shall be placed on probation. Transfer students who have no grade point deficiency (at any college previously attended) but whose previous college grade distribution, high school rank, test scores, or major objective raises questions about probable success may be admitted with a transfer warning.

## C. CURRICULUM ADJUSTMENTS FOR TRANSFER STUDENTS.

1. The work of students who transfer from other institutions of higher education will be evaluated in terms of curriculum requirements at the University of Northern Iowa. In so far as possible, courses covering similar areas will be accepted in lieu of courses required here. Students who have had two full years of a general education or liberal arts cirriculum will usually have satisfied many if not all of the requirements of the first two years. It should be understood that piecemeal work in several different institutions or an irregular pattern of work in a single institution will probably not meet many of the requirements of the first two years.
2. In determining the requirements for the baccalaureate degree, the records of transfer students having two or more years of college work will be examined in terms of the following requirements:
(1) The number of hours required for the degree less the number of hours accepted by transfer.
(2) All general education courses for which no reasonable substitute can be found.
(3) All work of the majors and minors, excluding such specific requirements as may have been met by accepted transfer courses, and including specific courses of the first two years or prerequisites for advanced courses where no acceptable transfer courses are presented. A transfer student is required to take at least 10 hours of work at this university on his major.
(4) Competence in reading, speaking, and writing is required of all candidates seeking degrees or university recommendation for certification.
(5) Scholarship requirements: (see statement B-Scholarship under Requirements for Graduation, p. 44).
3. Practices followed in evaluation of transcripts of record presented by the new transfer student include:
(1) College work presented by the transfer student is evaluated and reported to the student in terms of University of Northern Iowa equivalents when they exist. Credit earned in courses for which this university does not have an equivalent is simply reported as credit accepted. The student is also provided with another report including general university requirements still to be met.
(2) All college work previously attempted is considered for acceptance, including work for which a grade of $D$ is earned. Grades of failure remain as part of the student's record and transfer grade index.
(3) If an undergraduate student repeats a course, only the last grade earned affects the cumulative average; the grade point value of the first grade is no longer included in calculating the cumulative average.
(4) Transfer credit from a two-year college may be accepted to a maximum of 65 semester hours. This includes the total number of hours of credit accumulated by the student at all institutions attended prior to his attendance at the two-year college.
(5) Credit earned in excess of the maximum credit acceptable from the two-year college is not applicable toward minimum total hours required for a degree. However, this work is entered on the student's record and may be used to meet specific course requirements.
(6) Acceptance of credit earned in physical education activity courses (except for students majoring or minoring in physical education or recreation) is limited to a maximum total of four (4) semester hours. It is assumed that students transferring 30 or more semester hours have met requirements in physical education activities.
4. Transfer students on the Bachelor of Arts-Teaching Program must fulfill the following requirements:
(1) All required courses in education, psychology, and teaching.
(2) If courses equivalent to one or more of the common professional sequence courses can be determined, these may be accepted in lieu of like courses at this university. Ordinarily, students will be required to fulfill all three phases of the common professional sequence prior to student teaching.
(3) The same plan is followed in accepting credit for students who have completed a two-year program for teaching in the elementary school before transferring, except that they are not held for the professional courses of the first two years, if this requirement has reasonably been met.

## ADMISSION REQUIREMENTS FOR GRADUATE STUDIES

A graduate of a college or university accredited by the National Council for Accreditation of Teacher Education or by the North Central Association of Colleges and Secondary Schools or a corresponding regional agency will be granted admission to graduate study if his application for admission has been approved by the Registrar. See p. 201 for regulations governing admission to graduate study.

A graduate of a college or university that is not accredited may be granted conditional admission at the discretion of the Registrar. Admission to graduate study does not guarantee admission to candidacy for an advanced degree.

## CLASSIFICATION OF RESIDENTS AND NONRESIDENTS FOR ADMISSION AND FEE PURPOSES

1. General-Students enrolling at one of three state institutions shall be classified as Resident or Nonresident for admission, fee, and tuition purposes by the Registrar. The decision shall be based upon information furnished by the student and all other relevant information. The Registrar and the Director of Admissions are authorized to require such written documents, affidavits, verifications; or other evidence as are deemed necessary to establish the domicile of a student, including proof of emancipation, adoption, award of custody, or appointment of a guardian. The burden of establishing that a student is exempt from paying the nonresident fee is upon the student.

For purposes of resident and nonresident classifications, the word "parents" as herein used shall include legal guardians or others standing in local parentis in all cases where lawful custody of any applicant for admission has been awarded to persons other than actual parents.
2. Residence for Tuition Purposes-Regulations regarding residence for admission, fee and tuition payment are generally divided into two categories-those that apply to students who are minors and those that apply to students who are over eighteen years of age. The requirements in these categories are different. Domicile within the state means adoption of the state as a fixed permanent home and involves personal presence within the state. The two categories are discussed in more detail below.
3. Students Who Are Minors-The residence of a minor shall follow that of the parents at all times, except in extremely rare cases where emancipation can be proved beyond question. The residence of the father during his life, and after his death, the residence of the mother, is the residence of the unemancipated minor, but if the father and the mother have separate places of residence, the minor takes the residence of the parent with whom he lives or to whom he has been assigned by court order. The parents of a minor applying for admission will be considered residents of Iowa only if they have a domicile within the state at the time of the beginning of the semester, quarter, or session in which the minor is first enrolled at Iowa State Univesity or the State University of Iowa, or University of Northern Iowa, and if the parents establish such domicile for purposes other than to qualify their child for resident tuition.

A minor admitted before his parents have moved to Iowa may be reclassified as a resident at the beginning of the next semester or quarter in which the student is enrolled after his parents have a domicile in Iowa.

A minor under legal guardianship shall not be granted resident status if the primary purpose of the guardianship is to qualify the minor for resident tuition.

A minor living with and being supported by a relative or a friend who is a resident of lowa, but not a minor's legal guardian, may be granted resident status if he has lived with the relative or friend at least three years prior to high school graduation.
4. Students Over Eighteen Years of Age and Married Students Under Eighteen Years OF AGE-A student eighteen years of age or over and a married student under eighteen years of age shall be classified as a resident if (1) the student's parents were residents of the state at the time such student reached majority or was married and the student is not domiciled in another state, or (2) who after marriage or reaching majority has established a bona fide residence in the state of Iowa by residing in the state at least 12 consecutive months immediately preceding the beginning of the semester, quarter or session. Bona fide residence in Iowa means that the student is not in the state primarily to attend a college; that he is in the state for purposes other than to attempt to qualify for resident status.

Any nonresident student who reaches the age of 18 years or is married while under eighteen years of age while a student at any school or college does not by virtue of such fact attain residence in this state for admission or tuition payment purposes.
5. General Facts-The resident status for admission, fee, and tuition purposes of a married student shall usually be determined under these rules irrespective of the classification of the spouse. Married students under eighteen years of age shall be considered to have attained legal age as of the date of their marriage.

Persons who are moved into the state as the result of military or civil orders from the government, or the minor children of such persons, are entitled to resident status. However, if the arrival of the parents is subsequent to the time of the beginning of the semester, quarter or session in which the minor child is first enrolled, nonresident tuition will be charged in all cases until the beginning of the next semester, quarter or session in which the student is enrolled.

Dependents of persons whose legal residence is permanently established in Iowa, who have been classified as residents for tuition purposes may continue to be classified as residents so long as such residence is maintained, even though circumstances may require extended absence of said persons from the state. It is required that persons who claim an Iowa residence while living in another state or country will provide proof of the continual Iowa domicile such as (1) evidence that they have not acquired a domicile in another state, (2) they have maintained a continuous voting record in Iowa, and (3) they have filed regular Iowa income tax returns during their absence from the state.

Ownership of property in lowa, or the payment of Iowa taxes, does not in itself establish residence.

A student from another state who has enrolled for a full program or substantially a full program in any type of educational institution will be presumed to be in lowa primarily for education purposes, and will be considered not to have established residence in lowa. Continued residence in lowa during vacation periods or occasional periods of interruption to the courses of study does not of itself overcome the presumption.

All students not classified as resident students shall be classified as nonresidents for admission, fee and tuition purposes.

A student who willfully gives incorrect or misleading information to evade payment of the nonresident fees and tuition shall be subject to serious disciplinary action and must also pay the nonresident fee for each semester, quarter or session attended.

An alien who has entered the United States on an immigration visa and who has established a bona fide residence in Iowa by living in the state for at least twelve consecutive months immediately preceding the beginning of the semester, quarter or session may be eligible for resident classification provided he is in the state for purposes other than to attempt to qualify for resident status as a student.

Men in military service (except career service men) who listed Iowa as their residence prior to entering service and who, immediately upon release, return to Iowa to establish their residence or enter college, will be classified as residents unless their parents moved from the state while the individual was still a minor.

Change of classification from nonresident to resident will not be made retroactive beyond the semester, quarter or session in which application for resident classification is made.
6. Review Committee-The decision of the Registrar or the Director of Admissions on the residence of a student for admission, fee and tuition purposes may be appealed to a Review Committee. The finding of the Review Committee may be appealed to the Board of Regents.
7. Students enrolled for four (4) hours, or less, pay resident fees.

## Requirements for Graduation

In addition to the completion of one of the three baccalaureate degree programs, there are other specific requirements for graduation which apply to all undergraduate students seeking a bachelor's degree. These are listed below. See pages 207 and 233 for graduation requirements for a master's and specialist's degree programs.

## A. Residence

1. Not more than 32 semester hours earned in correspondence, extension, radio, or television courses may be used toward graduation.
2. At least 36 weeks spent in residence at this university while earning in such residence at least 32 hours of credit, of which 20 hours must be earned in the junior and senior years.
3. At least 32 hours of credit earned in the junior and senior years in courses at this university. This total may include nonresidence credit.
4. The last semester or full summer session before graduation spent in residence at this university.
B. SChOLARSHIP
5. A student working toward the bachelor's degree with certification to teach must achieve a cumulative grade-index in all course work attempted, at this university and elsewhere, of at least 2.20 to be recommended for graduation. The student must also achieve a cumulative grade-index of $\mathbf{2 . 2 0}$ on all work attempted at the University of Northern Iowa.
6. A student working toward the bachelor's degree (without certification) must achieve a cumulative grade-index in all work attempted, at this university and elsewhere, of at least 2.00 to be recommended for graduation; he must also achieve a cumulative gradeindex of 2.00 on all work attempted at the University of Northern Iowa.
Note: If a student has failed to be recommended for graduation because of his scholastic average, the deficiency may be removed only by work taken in residence.
C. COMMUNICATION-Competence in reading, speaking, and writing is required of all candidates seeking degrees or university recommendations for certification.
D. Advanced Courses-At least 10 hours of work in a major in courses numbered 100-199 and taken at this university.
E. Physical Education

A minimum of 2 hours of physical education activity credit is required for graduation. Not more than 4 hours of physical education activity credit will apply toward graduation requirements except for students majoring or minoring in physical education or recreation.

No physical education activity course may be repeated for credit except with the approval of the head of the appropriate physical education department.

A temporary release from physical education for all or part of a semester does not release the student from any part of the total requirement.
F. Listing of Chandidates for Graduation

A student may be listed as a candidate for graduation at the end of a semester if the completion of work for wheh he is registered would meet all the requirements for graduation exclusive of grade points, and if the grade points to be earned do not exceed the number which could be earned for the hours for which he is registered.
G. Application for Graduation

A student who expects to be graduated at the end of a semester must make written application at the opening of the semester. This application is filed in the office of the Registrar.

## H. Second Baccalaureate Degree

To receive a second baccalaureate degree, a student must meet all the requirements for the second degree, including at least 36 weeks in residence after receiving the first degree and not less than 32 hours of credit in addition to that required for the first baccalaureate degree.

The university does not grant two degrees, one with a Teaching Program and one with a Liberal Arts Program, for the same basic hours of credit ( 130 hours). A student may have a double major, one in Teaching and one in Liberal Arts, but the Teaching major must be the first major and the degree granted on the teaching program since it has the higher hour and grade index requirement.

## ADDITIONAL REQUIREMENTS FOR THE BACCALAUREATE-TEACHING PROGRAM

## Student Teaching

1. For the completion of any undergraduate curriculum the student must earn a minimum of eight (8) hours of credit ( 320 clock hours) in student teaching at this university, except that an undergraduate student with three (3) or more semester hours of credit in student teaching earned at the same level in another college or university may be released from four (4) hours of student teaching at this institution.
2. A teacher education major who has completed a two-year elementary teaching program at this university will not be held for additional student teaching if he/she desires to complete a major in elementary education. However, credit in Teaching 28:138 (28.137 for majors in middle school/junior high school education) will be required if the student majors in a field other than elementary education.
3. A teacher education major seeking certification and a dual endorsement* (i.e., early childhood/elementary, elementary/early childhood, elementary/special area, elementary/secondary, etc.) is required to complete a minimum of twelve (12) hours of credit in student teaching.
4. A teacher education major may exercise the option to complete a sixteen (16) hour semester of student teaching.
5. Not more than sixteen (16) hours of credit in student teaching may be used toward the 130 hours minimum required for graduation.
6. A student must make application for student teaching at least one semester in advance of the time when work in student teaching is to be taken. Transfer students must complete one full semester in residence before being approved for student teaching. Student teaching is not offered during the summer session.
*authorization to perform a specific type of service at a particular grade level(s). Applicant must complete an approved program.

## Office of Career Planning and Placement

Registration with the Office of Career Planning and Placement is recommended for all individuals who expect to be graduated from the University of Northern Iowa. All candidates for baccalaureate degrees, including degrees in education, liberal and/or vocational arts, music, and technology, as well as all candidates for master's or specialist's degrees are advised to register with the Office of Career Planning and Placement the semester prior to the date they expect to be graduated. The student is advised to register no matter what his or her post-graduation plans are since it is extremely difficult to compile a set of credentials including references following graduation.

## TEACHING CERTIFICATES

Teaching certificates are issued by state departments of public instruction and are valid only in the state of issue. A college or university recommendation that a certificate be issued is required.

Students on the teaching program must meet requirements for an Iowa teaching certificate to be graduated from the University of Northern Iowa. At graduation they are eligible for the Professional Certificate, valid for a period of ten years for the kind of service indicated by the endorsement on the certificate; e.g., elementary teaching, secondary teaching, teaching a special subject such as art or music. The student can usually secure appropriate certificates in other states by making proper application.

In addition to holding a certificate valid for the level of teaching being done, the secondary teacher must also have APPROVAL in each subject he is to teach. Approvals are issued by the Iowa Department of Public Instruction on the recommendation of an acceptable preparing education institution. To secure the recommendation of the University of Northern lowa, the student must usually meet the requirements for a major or a minor (or equivalant) in the subject. Exceptions are made only with the authorization of the university department offering the subject.

This university may recommend for certification those graduates of other colleges or universities who have completed their professional work here, but this is a discretionary matter and the university will expect such students to demonstrate excellence of scholarship and meet standarde of health, character, and personality, required of its own graduates. Such students must have been in residence at the University of Northern Iowa at least 22 weeks and earned at least 20 hours of residence credit.

Iowa requires a course in American history or American government for all certificates.
The Registrar will be pleased to answer specific questions concerning certification.

## HOURS OF CREDIT NEEDED TO RENEW OR REINSTATE A CERTIFICATE

Renewal and reinstatement requirements are established by the Iowa State Board of Public Instruction and are subject to change by this body at any time. The Division of Teacher Education and Certification of the Department of Public Instruction distributes information concerning all changes in certification requirements to city and county superintendents and to the teachereducation institution. Information concerning the renewal or reinstatement requirements may be obtained from the Registrar of the university or from

Department of Public Instruction
Division of Teacher Education and Certification
Grimes State Office Building
Des Moines, Iowa 50319

# Enrollment, Registration and General Academic Regulations 

## ENROLLMENT AND REGISTRATION

ORGANIZATION BY SEMESTERS-The university operates on the semester basis. This means that the work during the academic year is divided into two semesters of approximately eighteen weeks each. One semester hour of credit is based on one hour of work per week for eighteen weeks.

ENROLLMENT-Usually a student enrolls for the first time during the fall semester; however, a student may enroll for the first time during the spring or summer sessions.

SUMMER SESSIONS-The 1976 and 1977 summer sessions will include a full 8-week session and several compact sessions of four to five weeks duration. In addition, there will be a number of special sessions and workshops of varying lengths. For information write the Director of the Summer Session.

UNIVERSITY OFFICE HOURS-From the beginning of the Fall Semester to Memorial Day the principal administrative offices are open from $8 \mathrm{a} . \mathrm{m}$. to $5 \mathrm{p} . \mathrm{m}$. on Monday through Friday. During the remainder of the year (the summer months) the offices are open from 7:30 a.m. to 4:30 p.m. Monday through Friday.

Students and their parents are invited to come to the campus to make arrangements for university entrance. Such visits should be made on Mondays through Fridays only, since all university offices are closed on Saturdays and Sundays.

All university offices are also closed for the following holidays:

|  | 1976 | 1977 |
| :--- | :--- | :--- |
| New Year's Day | Thur.-Fri., Jan. 1-2 | Fri., Dec. 31, 1976 <br> Mon., Jan. 3, 1977 |
| Memorial Day | Mon. May 31 | Mon., May 30 |
| Independence Day | Mon., July 5 | Mon., July 4 |
| Labor Day | Mon., Sept. 6 | Mon., Sept. 5 |
| Thanksgiving | Thur.-Fri., Nov. 25-26 | Thur.-Fri., Nov. 24-25 |
| Christmas | Thur.-Fri., Dec. 23-24 | Fri.-Mon., Dec. 23-26 |
|  |  | Mon.-Tue., Jan. 2-3, 1978 <br> (New Year's Day 1978) |

## REGISTRATION PROCEDURE

NEW STUDENTS cannot register for classes until all requirements for admission to the university have been met. After the admission requirements are met, new undergraduate students will receive their registration materials in connection with the orientation program provided for such students. Further instructions for completing registration will be given during the orientation program.

FORMER STUDENTS, including those currently enrolled and those returning to the university after a semester's or more absence, must file a notice of intent to register for the semester in which they plan to enroll, except that students enrolled for a fall semester are not required to file a notice of intent to register for the following spring semester. The notice of intent to register is filed with the Registrar's Office before registration so that the student registration materials can be prepared. Specific information for each semester's registration procedures is given in the front
section of the Schedule of Classes for that particular semester; this schedule is available at the Office of the Registrar.

VETERANS-The university cooperates with the Veterans Administration providing for the education of veterans under the provision of federal laws. Dependents of veterans or of those persons who may be classified as prisoners of war or missing in action in Vietnam may also receive financial assistance from the Veterans Administration. The Office of Veterans Affairs and the office of the Registrar will assist students eligible under any of these laws and provide the required reports. For additional information, contact the Office of Veterans Affairs, University of Northern Iowa.

Veterans may be excused from the required activity courses in physical education upon filing a copy of a DD 214 form with the Registrar. This action does not excuse the student from completing the total number of hours of work required for a degree.

## FEES SCHEDULE

The fee schedule set forth below applies to all university students as indicated. There is no non-resident differential fee for non-resident students taking less than five (5) semester hours during a regular semester of the academic year.

Effective Fall Semester 1975
Non-
I. Basic Fees

Resident Resident
A. Academic year ${ }^{1}$

1. Undergraduates, per semester

| a. Less than 5 hours (0-4 hours), per hour | $\$ 26.00$ | $\$ 26.00$ |
| :--- | ---: | ---: |
| b. Minimum fee | 52.00 | 52.00 |
| c. Five to eleven hours (5-11), per hour | 26.00 | 50.00 |
| d. Twelve (12) or more hours, full-load fee | 315.00 | $\$ 600.00$ |
| Graduates, per semester |  |  |
| a. Less than 5 hours (0-4 hours), per hour | $\$ 37.00$ | $\$ 37.00$ |
| b. Minimum fee | 74.00 | 74.00 |
| c. Five to eight hours (5-8 hours), per hour | 37.00 | 78.00 |
| d. Nine (9) or more hours, full-load fee | $\$ 330.00$ | $\$ 690.00$ |

B. Summer Session ${ }^{2}$

1. Undergraduates

| a. Less than 8 hours (0-7 hours), per hour | $\$ 26.00$ | $\$ 50.00$ |
| :--- | ---: | ---: |
| b. Minimum fee | 52.00 | 100.00 |
| c. Eight (8) or more hours, full-load fee | 195.00 | 370.00 |

2. Graduates

| a. Less than 7 hours (0-6 hours), per hour | $\$ 37.00$ | $\$ 78.00$ |
| :--- | ---: | ---: |
| b. Minimum fee | 74.00 | 156.00 |
| c. Seven (7) or more hours, full-load fee | $\$ 238.00$ | $\$ 490.00$ |

[^0]| II. Residence Hall Fees |  | Academic |
| :--- | :---: | :---: |
| (Board and room, with double occupancy) | Semester | Year |
| Bartlett Hall | $\$ 505$ | $\$ 1,010$ |
| Bender Hall | 510 | 1,020 |
| Campbell Hall | 510 | 1,020 |
| Dancer Hall | 510 | 1,020 |
| Hagemann Hall | 510 | 1,020 |
| Lawther Hall | 510 | 1,020 |
| Noehren Hall | 510 | 1,020 |
| Rider Hall | 510 | 1,020 |
| Shull Hall | 510 | 1,020 |
| Residence Hall Activity Fee | $\$ 4$ | $\$ 8$ |

Residence Hall fees for the summer sessions are approximately as follows: 4 weeks, $\$ 125 ; 8$ weeks, $\$ 250$. Halls to be used in a given summer will be designated later and exact fees determined later.

## III. Other Fees

A. Applied Music

1. Students enrolled for other work per hour ..... \$ 35.00
2. Students enrolled for applied music only, per hour ..... 70.00
3. Group voice and group piano (groups of 4 or more) ..... 20.00
B. Late enrollment fee ..... 5.00
C. Change of registraton (after grace period), for each form filed ..... 5.00
D. Credit by examination, university courses, per course ..... 20.00
E. Correspondence, per semester hour ..... 22.00
F. Extension or Television class, per semester hour
4. Undergraduate ..... 26.00
5. Graduate ..... 37.00
G. Transcript of academic record
6. One transcript ..... 2.002. Multiple copies, same order- $\$ 2$ plus $\$ 1$ for each additional copy
H. Application for admission to the university ..... 10.00
I. Reinstatement of enrollment after cancellation ..... 10.00
J. Replacement of ID card or registration certificate ..... 3.00
K. Iowa Lakeside Laboratory fee - per session ..... 130.00
L. College-Level Examination Program (CLEP) tests
7. General examinations
a. One examination ..... 20.00
b. Two examinations ..... 30.00
c. Three-five examinations ..... 40.00
8. Subject examinations
a. One examination ..... 20.00
b. Two examinations ..... 30.00
c. Three-five examinations ..... 40.00
d. Six examinations ..... 60.00
e. Seven examinations ..... 70.00
f. Eight examinations ..... 80.00
g. Nine examinations ..... 80.00

All fees and all policies governing the refund of fees are subject to change by the State Board of Regents.

## GENERAL REGULATIONS

## WITHDRAWAL REFUNDS OR FEE REDUCTION

The information below applies to students who withdraw completely from school during a semester or summer session. Dropping one or more classes does not constitute a withdrawal unless the student drops all classes for which he or she is registered.

If credit is earned during the period of enrollment, there is no refund or reduction of academic fees. For any two- or three-week session, there is no refund or reduction of academic fees. Room and board refunds are made according to agreement set out in the "Contract for Room and Board."

Academic fees for a student enrolled for a regular semester or summer session who withdraws from the university will be reduced by the percentage indicated in the table below, beginning with the date of formal withdrawal. The amount of reduction will vary from $90 \%$ to $40 \%$ through the sixth week of a regular semester, with no refund or reduction after the sixth week. For summer sessions, reduction percentages are on a day-count basis. (Please see the Schedule of Classes for information pertaining to a particular semester or summer session.)

| Percentage <br> of fee | Semester <br> Withdrawal by end <br> of week* number- | Summer <br> Regular schedule |  |
| :---: | :---: | :---: | :---: |
| 90 | 1 | Withdrawal day** | number- <br> Short schedule <br> (8-week sessions) |
| 80 | 2 | $4-$ week sessions) |  |

*Weeks are defined as seven calendar days. The first week begins with the day instruction at the, university begins.
**Days are class days. Day count begins with the day summer session instruction begins. (See date in Summer Schedule of Classes.)
No refund for two- or three-week sessions.

## WITHDRAWAL PROCEDURE

A student who has started attending classes, and who finds it necessary to withdraw from school, initiates the withdrawal through the director of the residence hall in which he (or she) lives. If the student does not live in a residence hall, he (or she) begins the withdrawal in the Counseling Center.

A student who has enrolled but decides not to come to the University of Northern Iowa should advise the Counseling Center in writing at the earliest possible date, giving the reason(s) for withdrawing from the university.

## STUDENT IDENTIFICATION CARD

Each new student receives a plastic Identification Card which is used throughout attendance at the university. Each semester or summer session the student also receives a registration certificate. This registration certificate serves to validate the Identification Card for the particular semester for which the registration certificate is issued. A fee of $\$ 3.00$ is charged to replace either the plastic ID card or the registration certificate. Replacement of both items would cost $\$ 6.00$.

## ACADEMIC PROGRAM

The registration of every student is subject to the approval of his academic adviser.
The regular work of an undergraduate student for the fall or spring semester usually consists of 16 or 17 hours.

During the academic year an undergraduate student who has a cumulative grade index of at least 2.5 may register for a maximum of 18 hours. An undergraduate student who has a grade index of at least 3.0 may register for a maximum of 20 hours. No student may be enrolled for more than $\mathbf{2 0}$ hours. Persons employed full time should not register for more than $\mathbf{6}$ hours of academic work during either semester.

The regular work of an undergraduate student for the 8 -week summer session is eight to nine hours. However, a student on academic probation should not plan to carry more than eight semester hours.

Graduate students who have a UNI graduate grade point index of 3.00 or higher may enroll for a maximum of 9 semester hours of course work during the 8 -week summer session without securing special permission.

For each hour of credit for which a student is enrolled, he may expect to devote up to three hours a week in class or study.
CLASSIFICATION OF STUDENTS


## DECLARATION OF MAJOR-STATEMENT OF FURTHER WORK

The declaration of a major is made through the department offering the major. The choice of major should be made as early as possible in the student's university career, usually by the beginning of the sophomore year, in order to complete the program and fulfill requirements for graduation within the normal four years of academic work. When the major is declared, the student is assigned an adviser in the major department and a Student Declaration of Curricular Intent with this information is filed (by the student) in the Office of the Registrar.

When a student has earned at least 60 to 65 hours of credit and has declared a major, he is eligible for a Statement of Further Work required for graduation. This is prepared by the Office of the Registrar and sent to the student.

## CHANGE OF REGISTRATION

When a student finds it necessary to change his schedule of classes-either to drop and/or add a course, change sections of a course, or change to or from ungraded credit-a Change of Registration form must be completed and filed in the Scheduling Office. The form must be signed by the student's academic adviser.

Classes are rarely added after the first one-sixth of the term. To add a class for credit after the first one-sixth of a term, the student must have the approval of the instructor, the head of the department in which the course is offered, and the Dean of the College in which the course is offered. Courses dropped after the deadline for dropping with a W (Withdrawn), which is five days after the end of the first half of the fall and spring semesters and at the mid-point of half-semester and summer session courses, will be recorded as failed $(F)$ unless there are unusual circumstances and the student is doing passing work-in which case the instructor and the Dean of the College in which the courses are offered may approve a grade of $W$.

Students may change registration without charge up through the seventh instructional day of the fall or spring semester. After the seventh instructional day, a charge of $\$ 5.00$ will be made for each Change of Registration form filed. Any decision to waive the fee will be made by the Assistant Registrar in the Scheduling Office.

Pertinent dates governing the dropping and adding of courses, changing from or ungraded credit, and deadlines for making changes without charge are contained in the Schedule of Classes for that particular session.

## CLASS ATTENDANCE

The responsibility for attending classes rests with the student. As the citizens of lowa have every right to assume, students at this university are expected to attend class. This idea is neither novel or unreasonable.

Students are expected to learn and observe whatever attendance rules each individual instructor may require for the course(s) he teaches. Caution, therefore, must be exercised lest needless absences affect the quality of work expected by the instructor.

Instructors will help students to make up work whenever a student has to be absent for good cause. Here again the matter lies between the student and instructor. Students should realize that an hour missed cannot be relived, that work can seldom be made up 100 percent, and that made-up work seldom equals the original experience in class. Where possible, a student should notify the instructor in advance of circumstances which prevent the student from attending class. The established policy makes students responsible for attendance, provides for whatever make-up work is possible when absence cannot be avoided, and frees students from securing and carrying excuses.

Instructors will notify the Counseling Center in case a student's attendance is such that his membership in a class is in doubt. Failure to make such reports often puts the university in an embarrassing position with the Veterans Administration, parents, or with the students themselves.

## THE MAKING UP OF WORK

To receive credit for course work a student is required to be in attendance for the full semester. Exceptions to this rule are rarely made.

Work lost by late enrollment or by change of registration may be made up for credit by an undergraduate student with the consent of the Office of Academic Affairs. Graduate students must have the consent of the Dean of the Graduate College.

Work lost because of absence due to illness, or other extenuating circumstances, may be made up, but arrangements for making up work missed are made between the student and the instructor.

Work left incomplete at the end of a semester or summer session will be reported as a Failure unless a report of Unfinished ( $U$ ) has been authorized by the instructor. The $U$ is restricted to students doing satisfactory work in the class who, because of extenuating circumstances, are unable to complete the work of the course. The $U$ is limited to assigned work during the final sixth of the term. If a course is reported as Unfinished, a student is not prevented from registering for another course for which the unfinished course is a prerequisite. Work reported as Unfinished must be completed within six months from the time at which the report was made. If the work reported Unfinished is not made up within six months, it is automatically entered as a Failure on the student's record. However, if for sufficient cause an Unfinished cannot be removed in six months, request for an extension of the time may be made to the Head of the Department in which the course is offered.

## MARKS AND GRADE POINTS

The marks A, B, C, D, F (Failed), and U (Unfinished) are used in indicating quality of work. Courses dropped during the first one-sixth of the semester or summer session are not recorded on the student's record. Courses dropped during the second and third one-sixths of the term are indicated on the student's record by W (Withdrawn). For courses dropped during the final one-half of the term, F (Failure) shall be reported unless for unusual circumstances specific permission is given to report otherwise.

The time for dropping classes in the summer session is proportionately shorter than in the regular semester. Date deadlines for dropping or adding courses are given in the Schedule of Classes for each semester and the summer session.

Grade points are awarded as follows: For each hour of credit marked A, 4 grade points; A-, 3.67; $\mathrm{B}+, 3.33$; $\mathrm{B}, 3$ grade points; $\mathrm{B}-, 2.67$; $\mathrm{C}+, 2.33$; $\mathrm{C}, 2$ grade points; $\mathrm{C}-1.67 ; \mathrm{D}+, 1.33$; $D, 1$ grade point; $D-, 0.67 ; F, 0$ grade points.

Grade Index-In determining a student's cumulative grade index, all course work attempted at this university shall be used as the basis of computation with the following exceptions for undergraduate students: If a student repeats successfully a course he has previously failed, only the grade received for the successful completion will be included in figuring the cumulative grade point. If a student repeats a course he has successfully completed, the grade received the last time he takes the course will be used in figuring the grade index even though the last grade may be lower than the grade received previously. (The student's transcript of record will show every time the course is taken and the grade earned.) Post-baccalaureate students enrolled for work to meet requirements for certification as elementary or secondary teachers are given the same grade index advantage as is given undergraduate students for courses repeated. This applies only to those courses required for certification. If a graduate repeats a course, both grades count in computing the index.

Failed Courses-A course that has been failed must be repeated in an on-campus class in order to earn credit for the course. A course that has been failed may not be repeated by correspondence, nor may credit be established by examination for a course which has been taken previously and failed.

Academic Warning, Probation, and Suspension-The university believes that there are times when students must be called to account for their academic progress. This may be to stimulate the student to do a better quality of work, or it may be to terminate a student's stay at the university so as to make room for another student who is willing to make better use of the facilities. It is recognized that all types and varieties of situations occur and that, therefore, it is not reasonable to have a completely rigid set of rules governing probations and suspension. The university has a set of guide lines but allows the Committee on Admissions and Retention considerable discretion in the application of these guide lines to individual student situations.

Warning: This is the mildest form of action taken by the Committee and no entry of this is made on the student's permanent record. Transfer students who have no grade point deficiency (at any college previously attended) but whose previous college grade distribution, high school rank, test scores, or major objective raises questions about probable success, may be admitted with a transfer warning. A freshman or sophomore who is from one to nine grade points deficient of the number necessary for a 2.00 index at UNI will be warned, but a junior or senior in the same situation may be either warned or placed on probation.

Probation: This action is a more serious one and it is entered on the student's permanent record. Any student who is deficient from ten to fifteen grade points for a 2.00 cumulative index at UNI will be placed on probation. A student who has been placed on probation may improve his record and be removed from probation after reaching a 2.00 cumulative index at UNI or he may lower his record and be subject to a suspension.

Suspension: A student who at the end of any semester or summer session is more than fifteen grade points deficient for a 2.00 grade index at UNI may be suspended indefinitely or for a predetermined period of time.

The university has very generous provisions for a student to drop courses during a semester, or to withdraw from school without serious academic penalties. However, there are times when repeated withdrawals or dropping of courses may raise questions as to the serious intent of the students, and when it would be well to consider the need to make spaces available for other students who are serious in their efforts. Therefore, if in two consecutive semesters (summer omitted) a student withdraws from the university or drops more than half the work for which he was enrolled at the end of the third week, he may be suspended indefinitely or for a predetermined period of time.

Readmission after Suspension: If a student has been suspended for a predetermined period of time and this time was indicated in his notice of suspension, he may return without any formal action by the Committee on Admission and Retention at any time after the suspension period has expired. If the student has been suspended for an indefinite period, he may be readmitted only after applying for readmission in writing and receiving favorable action on the application from the Committee. Readmission is seldom granted before the student has been out of college at least six months. Applications for readmission may be secured from and filed with the secretary of the Committee in the Office of Admissions.

Students who are readmitted after suspension are on probation. The Committee will expect an improved quality of academic work and will check the student's progress regularly. If there is no improvement, the next suspension can be permanent.

Dean's List-To be eligible for the Dean's Honor List, which is published each fall and spring semester, a student must have earned a grade-point average of no less than 3.50 while completing at least 12 semester hours in graded work or in field experience in that semester. A Dean's Honor List is not compiled for the summer session, nor does the list include graduate students.

Graduation with Honors-Three grades of honors are awarded to students on graduation from a bachelor's degree curriculum. To receive an honor rating, the student must earn not less than 64 semester hours of credit at this university. Only credit earned in residence at this university is considered in making honor awards.
a. Those whose grade index on the basis of work at this university is 3.75 or higher are awarded Highest Honors.
b. Those whose grade index is 3.50 and less than 3.75 are awarded High Honors.
c. Those whose grade index is 3.25 and less than 3.50 are awarded Honors.

The names of students receiving honors are starred in the commencement list with a foot-note explanation.

Credit/No Credit Grading-An undergraduate student having earned twelve semester hours of credit at this university may take courses offered by this institution for which he is otherwise eligible for degree credit without grade under the following conditions:

1. The course work requirements for a student taking work on an ungraded basis shall be the same as for a student taking the work on a graded basis.
2. A grade of $\mathbf{C}$ - or higher is required in a course to receive credit on the "Credit/No Credit" option.
3. Not more than 22 hours of ungraded course work in addition to courses authorized to be offered only for ungraded credit may be taken toward any bachelor's degree.
4. Ungraded credit may not be applied to work required for a major or minor except with the consent of the head of the department in which the course is offered.
5. Effective with the beginning of the 1976 Spring Semester, no course taken in the "Credit/No Credit" option may be applied toward fulfilling a General Education requirement.
6. Except for Field Experience: Interpersonal Interaction Patterns (20:017), Field Experience: Teacher as Change Agent (20:018), and Value Clarification Seminar: Interpersonal Influence Preferences (20:020), and for Student Teaching (28:xxx), ungraded credit may not be used in the Common Professional Sequence requirements for the teaching program.
7. Course work passed without grade may not be re-taken except by special permission of the Dean of the College in which the course is offered.
8. A graded course completed may not be re-taken on an ungraded basis.
9. The Credit/No Credit system may not be used with Credit by Examination, Extension, or Correspondence courses.
10. Change of registration in a course to or from a non-graded basis may not be made after five class days beyond midterm in a full, academic-year semester, or after the mid-point in the duration of a course taught in a period less than a full, academic-year semester. Only one such change of registration may be made per course.

Open Credit System-This type of credit is designed for special projects such as a paper, experiment, or a work of art. The student must be registered for a minimum of 12 hours of work during the semester "open credit" is requested. No prior registration for open credit is necessary, and there is no specific time period set for completion of a project; however, there is no guarantee of credit prior to or upon submittal of the project. Open credit is normally elective, but through the procedures of the Individual Studies Program may be approved for electives in general education or major credit.

The number of open credit hours assigned to a project will reflect the academic evaluation of the project; no letter grades are given. The range of credit is from 0 to 6 hours per project.

A student is limited to a maximum of 18 hours of credit over a normal, four-year undergraduate program. A project may be submitted any time during the semester up to a date three weeks prior to the last day of regularly scheduled classes.

The results of the student's efforts are submitted to an ad hoc committee of three faculty
members of the student's choosing: two from the academic area or discipline in which the project falls, one from any area or discipline. The student may not submit a project evaluated by one committee to a second committee for re-evaluation. He may resubmit a project to the original committee at that committee's discretion or with its encouragement. Students should contact the Individual Studies Office for advice in planning projects.

Application forms may be secured from the Office of the Registrar.

## CORRESPONDENCE STUDY/ EXTENSION CREDIT

Correspondence study and extension classes comprise the media by which extension credit may be earned. Definite limitations on the amount of extension credit which a student can earn have been set by the Iowa State Department of Public Instruction, Division of Teacher Education and Certification, and by this university. Students registering for extension credit are urged to familiarize themselves with these regulations, a copy of which may be secured by writing the Director of Extension Service.

Correspondence Study-Any student who fully meets admission standards will be permitted to enroll for Correspondence Study and may be permitted to continue such study so long as he continues to maintain a minimum academic average of 2.00 . A student may not take by correspondence a course which he has previously failed.

As correspondence study courses do not follow the regular semester time schedule, a student may enroll at any time of the year; however, a student must have special permission to enroll in or continue with correspondence work while he is currently enrolled for regular courses on campus. Students who have declared a major must have the approval of the Dean of the College in which their major is offered. A student without a declared major must have approval from the Office of Academic Affairs.

With special, advance permission from the Dean of the Graduate College, credit earned through Correspondence Study may be applied on the 30 -hour minimum requirement for a master's degree at the University of Northern Iowa.

The fee for Correspondence Study is $\$ 22$ per semester hour for both undergraduate and graduate students.

Extension Class Study-Conditions for admission to extension class study are the same as for admission to residence work. There is no distinction between on-campus and off-campus credit in meeting university degree requirements. Two-thirds of the credit required on a graduate degree program must be earned in classes taught by UNI staff. The fee for extension credit is $\$ 26$ per semester hour for undergraduates and $\$ 37$ for graduate students.
Note: Note more than one-fourth of the work required for an lowa Teaching certificate or the bachelor's degree may be earned in non-resident credit.

## CREDIT BY EXAMINATION

Credit in a course may be earned by examination. Credit is earned only if a grade of A or B is recieved in the examination. A grade of C will release a student from a course requirement, but gives no credit. A grade below $\mathbf{C}$ gives neither credit nor release, and is recorded as a failure. Credit earned by examination is recorded on the student record only as Passed, Released, or Failed. The results are not counted in a student's grade index.

Credit may not be established by examination for a course which has been taken previously and failed, nor for a course for which the student does not meet the prerequisite, nor for a course which is a prerequisite to one for which credit has already been earned.

Application for credit by examination is made to the Office of the Registrar, and approved by the Head of the department offering the course and the Dean of the College in which the course is offered.

The department may set the policy of giving the examinations, and establishing the requirements for fulfilling the examinations. Credit by examination is open to most courses offered on campus; however, a student should discuss the course requirements with the department head before making application for credit by examination.

## GRADUATE CREDIT FOR UNDERGRADUATE STUDENTS

Seniors at this university who are within fourteen semester hours of graduation and who wish to take graduate study for graduate credit must file an application for admission as a graduate student. Exception to the limit is rarely made and the student must have special permission from the Dean of the Graduate College.

## INDEPENDENT STUDY

Students of outstanding ability and achievement may be permitted to earn credit by departmental independent study.

This method of study follows the pattern of an investigation undertaken by a graduate student, although in miniature form. It involves independent thinking, the drawing of conclusions, the summarizing of evidence, or creative work. Whenever possible, the result of the investigation is summarized in a scholarly paper or report, prepared and documented in approved fashion. This report is filed in the department office.

Independent study should not involve work available through regular university courses; neither should it be confused with individual instruction, or the tutorial method. Individual instruction is provided on rare occasions for instruction in a university course not currently being offered.

Application for independent study, including an outline of the proposed project, should be made to the head of the department in which the study is to be done and must have his approval before the project is undertaken. The student's program of independent study will be under the immediate supervision of one or more faculty members. Except for the major in Individual Studies, not more than six hours of credit earned by independent study may be used to meet the requirements of a major.

Independent study may also be taken under the Individual Studies program. See pages 30 and 198 for details.

## VISITING CLASSES

A student may attend classes on a non-credit basis at the University of Northern lowa if a space is available in the class, and under the following conditions. To visit (audit) a course, the student must have the approval of the instructor of the course and the dean of the college in which the course is offered. However, if the addition of the course to be visited (audited) makes the student's total course load hours more than he is permitted to carry according to his grade point average, the student also must have the written permission of the dean of the college of his major to visit the course. (Undeclared majors will need approval from the Office of Academic Affairs for an overload of course work.)

The student who is currently enrolled for a program requiring payment of the fulltime tuition fee does not have to pay an additional fee to visit (audit) a course.

Students enrolled on a part-time basis (with fees charged on a per-credit-hour basis) and those persons who are not regularly enrolled for any classes will be required to pay one-half of the regular credit-hour fee for each course attended as a visitor.

A by-the-week visitor's fee is charged those persons who are on campus for a limited time and may wish to visit a series of classes for usually not more than one or two weeks.

Specific information on visiting (auditing) classes may be obtained from the Office of the Registrar. Visitors in the courses are not required to take examinations or complete other work; nor are they permitted to take part in class discussion. They are present as observers.

## ADVANCED PLACEMENT PROGRAM

The University of Northern Iowa participates in the Advanced Placement Program of the College Entrance Examination Board. Through enrollment in special courses in a participating high school, a qualified high school senior may take achievement examinations in one or more academic subjects at the college level. UNI grants college credits in art, biology, chemistry, English, foreign languages, history, mathematics, music, and physics to students who pass examinations with scores of 3,4 , or 5 . Details of this program may be obtained from the Director of Admissions, UNI.

## COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP)

Two types of CLEP examinations are given at UNI-General Examinations, which may be applied to general education requirements, and Subject Examinations. The General Examinations are given during the orientation and registration programs for new students and during the first week of classes of each semester and the summer session as well as at other times during the year as set by the Office of Institutional Research. The Subject Examinations are given at least once during each semester, usually on a Saturday near the middle of the term. Students who plan to attend UNI and who wish further information on CLEP may write to the Office of Admissions. Enrolled students interested in earning credit through CLEP should contact the Office of Institutional Research for information and dates of examinations.

At the present time five General Examinations are given-English Composition, Humanities, Mathematics, Natural Sciences, and Social Sciences-History. The test scores are given with the percentile ranks based on scores achieved by a representative sample of all students at the end of their sophomore year in American colleges and universities. Credit earned by CLEP through the General Examinations may be applied only to general education requirements at UNI with the 70th percentile the minimum achievement level nor credit. Tests are ordinarily taken early in the freshman year, usually at the time of first registration, but must be completed before registering for general education courses in subject areas to which the tests apply. General Examinations administered by the UNI Testing Center are locally scored and students are advised soon after completing the examination(s) whether or not they have earned credit.

Subject examinations are end-of-course tests developed for widely taught undergraduate courses. Percentile ranks for the tests compare an individual's knowledge of the subject with scores received by regularly enrolled students, who have just completed an equivalent course. The minimum achievement level for credit on the Subject Examinations is the 50th percentile using these norms. A list of subject courses for which CLEP examinations may be taken at UNI is available from the Office of Admissions. Subject Examinations are not scored locally. Students should expect a delay of at least four weeks between the time of testing and receipt of scores.

A maximum of 32 semester hours of credit earned through examination may be applied toward degree requirements at UNI. This includes credit earned by CLEP or any other kind of examination taken to earn credit. Credit earned through CLEP is not considered residence credit and is governed by policies established for correspondence, extension, radio, and television courses. Credit earned by CLEP is entered on the student's permanent record as credit and is not awarded a letter grade and, therefore, is not used when computing the student's grade-point index. The student is permitted only one trial for each examination to establish credit.

Credit established by CLEP at another accredited college or university will be accepted at full value if it is accompanied by at least 12 semester hours of credit earned in residence at the institution making the report. Students who have not earned a minimum of 12 semester hours in residence at the institution where CLEP credit was established may have consideration given to the percentile scores earned in individual examinations. Students with scores meeting standards for acceptance of CLEP credit at UNI may have credit granted at UNI for credit earned through CLEP.

A student may not earn credit by examination in an area in which he has previously attempted or completed an equivalent course, a course of similar level, or one that is more elementary in content level. A course in which a student was enrolled until such time that he has earned a $W$ or a grade is considered to be an attempted course.

A fee is charged for the examinations at the following rate:
$\$ 20$ for one General or Subject Examination
$\$ 30$ for any two General Examinations or any two Subject Examinations
$\$ 40$ for any three to five General Examinations or any three to five
Subject Examinations
For General Examinations, new freshmen and other enrolled students pay the examination fees at the Business Office prior to taking the examinations. (The receipt received must be presented for admittance to the testing center.) For Subject Examinations, students must register and pay examination fees at the UNI Testing Center (Office of Institutional Research) at least 15 days prior to the scheduled examination date. If more convenient, students may write or call the UNI Office of Institutional Research requesting a registration form and mail the completed form and fees to the Office of Institutional Research. No refunds of fees will be made after tests have been administered.

## REGENTS UNIVERSITIES STUDENT EXCHANGE PROGRAM

University of Northern lowa students may take courses at either of the other two Regents universities for UNI resident credit. Regular, degree-bound students in good standing at any of the three Regents universities may attend another Regents university for a maximum of two semesters (three quarters), and the credits earned at the other university will be counted as resident credit at their home institution. Approval for participation and credit in the exchange program must be obtained well in advance of registration since the department head must approve the acceptance of such credits if these are to apply on the major, and to insure complete processing of the application between the cooperating universities within specified dates for enrollment.

Detailed information and application forms for the exchange program are available from the Office of the Registrar, UNI.

## WORKSHOP AND STUDY TOURS

From time to time, and especially during the summer season, opportunities are offered for earning credit under the workshop plan. Workshops provide residence credit but a maximum of 6 semester hours may be applied toward graduation.

Occasionally departments of the university may arrange extensive study tours here and abroad for credit. These trips are open to graduate and undergraduate students. Plans for this type of study and the number of hours of credit which may be earned are announced through university publications. During recent summers several study tours were conducted by departments of the university. (See p. 27 for details).

## NONDISCRIMINATION POLICY OF THE UNIVERSITY OF NORTHERN IOWA

Believing that the freedom of an individual should in no way be restricted or circumscribed because of race, national origin, or religious beliefs, the administration of the University of Northern Iowa pledges its unqualified endorsement and support of the Nondiscrimination Policy Statement adopted by the Iowa State Board of Regents on September 25, 1954.

The administration of the University of Northern Iowa also pledges its compliance with Iowa Fair Employment Practices and Public Accommodation laws and the federal Civil Rights Act of 1964 and its cooperation with the Iowa Civil Rights Commission.

The University of Northern Iowa recognizes a responsibility to observe the spirit as well as the letter of the federal and state laws regarding discrimination. It is the intent of the university
not only to avoid policies and practices which tend to deny opportunity to, or deprecate or denigrate, any individual or group because of race, color, creed, sex or national origin, but also to work actively to provide opportunities for disadvantaged individuals.

## STUDENT CONDUCT

The University of Northern Iowa expects each student, as a condition of remaining in the university, to conduct himself so as to maintain an effective environment for learning, to observe university regulations and the city, state and federal laws, and to respect fully the rights of others. The Student Code contains more specific information concerning student conduct and related disciplinary action.

## STUDENT RECORDS

In the maintenance of student records, and in permitting access to those records or the release of information contained in those records, the University of Northern Iowa must comply with the laws of the United States and the State of Iowa.

Perhaps the most significant and comprehensive piece of legislation regarding student records is the "Family Educational Rights and Privacy Act of 1974" (commonly referred to as the Buckley Amendment). This Act was passed by Congress and became effective November 19, 1974. In general, it gives all students who are attending or who have attended an institution of postsecondary education the right to inspect and review their education records. It also prohibits the institution from releasing personally identifiable information, except directory information, to anyone unless the student gives written consent to such release. The Act makes certain exceptions to these general provisions.

University policies relative to student records are contained in the Student Code. The "Family Educational Rights and Privacy Act of 1974" may be reviewed in the Office of the Vice President for Student Services, Room 242, Administration Building.


## Curricula

The University of Northern Iowa offers degrees at both the undergraduate and graduate levels. The graduate program is given in detail on pp. 200-240. At the undergraduate level the University of Northern Iowa offers three baccalaureate degrees: the Bachelor of Arts, the Bachelor of Music, and the Bachelor of Technology. Major goals in the programs leading to these degrees are the advancement of humane learning and the preparation of young men and women to cope intelligently, effectively, and reasonably with the complex and changing conditions of life in modern society. To attain these goals students are expected to make significant progress while at the university toward:

1. understanding themselves and the society in which they live,
2. developing the ability to read, write, and speak their own language well and to appreciate its literature,
3. gaining an acquaintance with the literature of another language and the culture of its people, preferably in the original but certainly through the study of translations,
4. securing a thorough grounding in the history and cultural traditions of the modern world with a special sympathetic understanding for the economic, social, and political problems of our time,
5. acquiring an understanding of the principles and methods of the natural sciences and mathematics and the part they play in modern society,
6. developing the ability to perceive the values of the arts and derive an enjoyment from them,
7. acquiring a knowledge of how to care for their own health and physical environment and to take an intelligent interest in the health and welfare of the community in which they live,
8. growing in the desire to secure knowledge.

To achieve these ends the students are obliged to take a variety of courses drawn from among the arts, humanities, philosophy, mathematics and language, and from among the biological, physical and social sciences. Concentration in a major field enables a student to engage in intensive study, to think for himself, and to exercise discriminating judgment. It prepares him for more advanced work if he decides to go on to graduate school, or for immediate employment. This emphasis on the academic program is not to exclude the contributions made by other parts of the college life to the substantial development of a student's personality-social and athletic activities, public speaking and dramatic arts, music, art, public affairs, or other programs.

The desired result of these degree programs is not an individual who conforms to society as it is or sees his own vocation within the narrow confines of his day-to-day occupation, but rather a person enriched in mind and spirit and so stimulated that he will seek with eagerness to contribute to the benefit of the world in which he lives. Such a program is desirable for all students whatever their future professions may be.

For those who plan to become teachers, additional work is required in professional education. This work seeks to enhance the student's interest in teaching, to instill loyalty toward the profession, and to encourage the desire for continuous professional growth. The student learns the skills, techniques, and understandings necessary to good teaching. He studies the recent knowledge concerning the physical and mental growth of the child, the ways children learn, the guidance of that learning to its fullest potentialities in each child. The student explores the mutual relationships and responsibilities of the school, community, and the teacher.

The prospective teacher must also spend a significant part of his time in the area of learning in which he chooses to concentrate. His mastery of the subject matter of this area, its closely related
fields, and the skills to present it effectively are essential aspects of successful teaching.
The teaching program requires more hours to complete than the non-teaching program in order to include the necessary professional work and to approximate, as far as possible in a fouryear period, the other major goals listed above. Students on the teaching program especially are encouraged to continue their education beyond the bachelor's degree.

The University of Northern Iowa offers both undergraduate and graduate curricula.

## I. UNDERGRADUATE CURRICULA

## BACHELOR OF ARTS DEGREE

Two programs leading to the Bachelor of Arts degree are available.

## A. Bachelor of Arts-Teaching Program-130 semester hours. <br> On this program students are prepared as:

1. Secondary teachers of art, business education, geography, English, foreign languages, home economics and vocational home economics, industrial arts, mathematics, music, physical education, science, social science subjects, and speech.
2. Special teachers of art, industrial arts, music, physical education, speech correction; and as school librarians.
3. Elementary teachers, kindergarten through sixth grade.
4. Junior high school teachers in all usual areas of instruction.
B. BACHELOR OF ARTS- 124 semester hours. On this program students are prepared in the following areas:
5. Liberal Arts-Art, English, foreign language, mathematics, music, psychology, speech, social science, and science.
6. Vocational-Business, home economics, industrial arts, and physical education.
7. Program for Registered Nurses

A student certified or licensed as a registered nurse (R.N.) may be recommended for a Bachelor of Arts degree with a major in General Studies in accordance with the following provisions:
a. A student who has taken the work required for certification or licensure, including the successful completion of required agency examinations, will be accepted for transfer as equivalent to 45 semester hours of work to apply on the bachelor's degree. Such work may have been earned in a two-year associate degree program or in an approved hospital diploma program.
b. Ten of the transfer hours of work required for R.N. certification are applied to general education requirements in the areas of science and communication. The student shall complete the General Education program by taking an additional 30 semester hours in approved General Education courses in accordance with the following distribution:
(1) Humanities (at least 2 areas)........................................... 8-10 hours
(2) Social Sciences (at least 2 areas) ........................................ . 8-10 hours
(3) Science (at least 1 area) ................................................. $4-5$ hours
(4) Physical Education ....................................................... 2 hours
(5) Other Cultures............................................................ 3 hours
(6) Electives, if necessary, to make a total of ............................. 30 hours

Transfer Credit ........................................................... 10 hours
General Education total.................................................... . . . 40 hours
c. The student shall complete a minimum of 15 hours of 100 -level courses from each of two of the four undergraduate colleges. The student's program will be planned in consultation with the faculty adviser and approved by the adviser. Areas for such coordinated programs might include biology, business, education, health, home economics, physical education, psychology, social work, sociology.
d. As an alternative to item "c," the student may complete the requirements for a maior offered by any department and graduate with a Bachelor of Arts in the chosen major.
e. A student may not earn duplicate credit for courses taken at another institution and judged to be equivalent.
f. The student shall earn enough credit in elective courses to have a total of 124 hours of academic credit.
g. This program is under the jurisdiction and general supervision of the Dean of the College of Natural Sciences. Students entering this program will confer with the Dean on the appointment of an adviser. Such advisers may be faculty members from any of the four undergraduate colleges.
This degree program is not recommended for students intending to work in nursing education at the collegiate level, in such areas as public health, or psychiatric nursing, nor those for whom the primary intention is graduate work in nursing.
4. Joint Programs

Students interested in one of the following professional programs may complete the basic work on the University of Northern lowa campus and transfer to UNI a year's credit from the professional school to complete the requirements for a Bachelor of Arts degree at UNI:

Dentistry
Medicine
Medical Technology
Physical Therapy
A student shall complete at UNI all the requirements in General Education (40 semester hours) and the requirements for a major in Science and have a total of at least 96 semester hours at UNI. The professional courses transferred will bring the total hours to at least 124 semester hours. Credit is accepted only from professional schools which are fully accredited.

The student must know the requirements for entrance of the professional school so as to be able to take at the University of Northern Iowa the work required for admission while at the same time meeting UNI degree requirements. The student will work with a pre-professional adviser who will help in the selection of proper courses.
a. Acceptance of credit from professional schools of dentistry, medicine, osteopathy, and podiatry toward meeting part of degree requirements:

A student who has completed three years or more of college work with a minimum of 96 semester hours, of which at least the last 30 hours of work was completed at the University of Northern Iowa before admission to an accredited professional college, may use professional credit to satisfy the remaining hours required for the baccalaureate degree at the University of Northern Iowa. The student shall have completed all of the specific requirements for the degree as well as the requirements of an appropriate major at this university.
b. Acceptance of credit from a professional school of Medical Technology or Physical Therapy toward meeting part of degree requirements:

A student who has completed three or more years of college or university work with
a minimum of 96 semester hours, of which at least the last 30 hours of work was completed at the University of Northern Iowa before admission to an approved school of Medical Technology or Physical Therapy, may use professional credit to satisfy the remaining hours required for the baccalaureate degree at the University of Northern Iowa. The student shall have completed all of the specific requirements for the degree, as well as the requirements of an appropriate major at this university. In addition, medical technologists shall successfully complete the examinations of the Registry of Medical Technology of the American Society of Clinical Pathologists; physical therapists must pass the examination of the American Registry of Physical Therapists.

## C. Other Programs

1. Pre-professional-Suggested programs are available for those planning to transfer into Medicine, Dentistry, Osteopathy, Podiatry, Law, and Engineering. These may be requested in advance from the Registrar.
2. Cooperative Programs-
a. Two-Year Cooperative Nursing Program with the University of Iowa. Through a cooperative arrangement between the University of Northern Iowa and the College of Nursing at the University of Iowa, students may enroll at the University of Northern Iowa for the first two years of the four-year Bachelor of Science in Nursing program. The program is completed at the University of Iowa and the degree awarded by that institution. A carefully planned sequence of courses, covering two academic years, has been developed for students who find it advantageous to begin the four-year baccalaureate program at UNI. Students who complete the two-year sequence with at least a 2.20 grade point average on all college work undertaken may apply for admission to the College of Nursing, University of Iowa, for one summer session and two academic years of study in the nursing major. Upon completion of the major, graduates may write the examination for Registered Nurse licensure.

At the University of Northern lowa students complete two years of basic studies. These courses include work in general education along with introductory and basic science courses. Program details are available from the Dean of the College of Natural Science.

During the first semester of the sophomore year students who have earned the required 2.20 grade point average will submit an application to the University of Iowa for admission to the College of Nursing. The Admissions Committee of the College of Nursing reserves the right to select those students for the summer session course in Foundations of Nursing who are deemed most likely to succeed in the nursing major. Tenative admission statements will be given to qualified students by April 1, with final admission statements reserved until sophomore grades are certified by the University of Northern Iowa.
b. Freshman Academic Program with the Allen Memorial School of Nursing. The University of Northern Iowa cooperates with Allen Memorial School of Nursing, Waterloo, Iowa, to offer the freshman year academic work. Admission to the program is a joint action of the School of Nursing and the university. Applications should be made to the School of Nursing.
c. Three-year Program in Medical Technology. The University of Northern Iowa cooperates with Allen Memorial School of Medical Technology and Schoitz School of Medical Technology, both located in Waterloo, Iowa, to offer the first three years of work; the schools of medical technology offer the fourth year. Applications should be made to the Registrar of the university and a copy of the combined program requested.

A student who expects to transfer to another institution should declare his special interest at the time of admission. He will be assigned to an adviser who is familiar with the type of program which he seeks. Before seeing his adviser for the first time, the student should secure a copy of the catalog of the school to which he wishes to transfer, and know its requirements thoroughly. If he remains more than one year at the University of Northern Iowa he must clear his program with the Coordinator of Advising at the beginning of the sophomore year.

## BACHELOR OF MUSIC DEGREE

Majors on this degree program have a choice of five areas: voice, piano, organ, orchestral instruments, and theory-composition; each requires a total of 130 semester hours. Students are prepared for careers in college teaching, as performers, and for other fields where a high degree of musical knowledge or performing skill is required.

## BACHELOR OF TECHNOLOGY

This program allows the student a choice of majoring in three areas: technical institute, trade and industrial education, or industrial technology. The first two areas lead to a degree with certification to teach.
A. Technical Institute Education major-133 hours.

This major is designed to prepare teachers for post-high school technical programs, and also requires one year of recent and significant technical work experience in industry in the major area.
B. Trade and Industrial Education major-133 hours.

The purpose of this major is to prepare teachers for vocational-technical schools to teach such skill trades as machines shop, carpentry, electrical, and other trade programs. Two years of recent and significant trade experience in desired trade is required in addition to the course work.
C. Industrial Technology major-127 hours.

This major is designed to prepare persons for supervisory and leadership positions that are auxiliary to the field of engineering; more specifically, graduates from these programs may be employed in one of the following divisions of industry: engineering, design and development, production and manufacturing, field service and product utilization, and sales and distribution. The degree program requires one year of recent and significant technical experience in industry in the major area in addition to the required course work.

## CHANGE OF DEGREE PROGRAM

Students who change from one degree program to the other will be held for all specific requirements of the program on which they expect to graduate. There will be little difficulty in making such a change if it is made not later than the beginning of the junior year. However, if the change is made later than that, there is no assurance that the student will be able to complete the work required for graduation within the usual four-year period.

## II. GRADUATE CURRICULA

The University of Northern Iowa offers five graduate degrees:
A. Master of Arts in Education-30-38 semester hours.
B. Master of Arts- $\mathbf{3 0 - 3 3}$ semester hours.
C. Master of Business Administration- 30 semester hours.
D. Specialist in Education-Minimum of 30 semester hours beyond the master's degree.
E. Specialist-Minimum of 30 semester hours beyond the master's degree.

For details of graduate programs, see pages 200-240.

## General Education Program

All candidates for the baccalaureate degrees on any curriculum are required to complete the designated program of General Education. Credit earned in General Education and in the major or minor may be used to meet requirements in one or the other, but not in both. Because of the flexibility of the program and the wide choice in courses available to the student, General Education requirements must be satisfied through class enrollment (or credit by examination). (General Education requirements may not be satisfied by demonstration of competency or release-without credit-by examination.) Specific courses which may be taken to fulfill the General Education requirements are listed in the Schedule of Classes for each semester and summer session. The student is advised to complete the General Education Program as early as possible in his university career, preferably by the end of the sophomore year.

## GENERAL EDUCATION REQUIREMENTS-

Required: 26-34 hours from the following specific areas:
Humanities-courses from at least two of the following areas
8-10 hours
Art
Music
History
Humanities
Philosophy
Literature
Religion
Theater
Social Sciences-courses from at least two of the following areas .................. 8-10 hours
Anthropology Political Science
Economics Psychology
Geography Sociology
Science-courses from at least two of the following areas . . . . . . . . . . . . . . . . . . . . 8-10 hours
Biology Physical Science
Chemistry Physics
Earth Science Technology
Mathematics
Physical Education: at least 2 hours of activity courses . . . . . . . . . . . . . . . . . . . . . . . . . 2-4 hours
(Women must have credit in both 39:001 and 39:002 courses, 26-34 hours which may not be taken concurrently.)

Electives: from the following groups (student must select at least
3 hours from the category "Other Cultures") . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6-14 hours
Communication:
Composition
Foreign Language
Other Cultures:
American Indian
American Negro Culture
Comparative Religion
Independent Study:
Open-credit:
Seminars:

Mass Media
Speech
Culture of the Ghetto
Foreign Area Studies
Values East and West

## Bachelor of Arts Degree Curricula

## Bachelor of Arts-Teaching Program

All candidates on this program will choose one of the following patterns not later than the beginning of the sophomore year. Graduation from a teaching program requires credit in American history or American government.
A. Preparation for teaching in the secondary school or in special subjects.Semester HoursGeneral educationMinimum 40
Common professional sequence ..... 23
Major, minor, electives ..... 67
B. Preparation for teaching in middle school/junior high school (grades 4 through 9)
Semester Hours
General education Minimum 40
Common professional sequence ..... 23
Major requirements ..... 14
Professional semester ..... 17
Subject field and electives ..... 36
C. Preparation for teaching in the elementary school (kindergarten and grades 1-6)
Semester Hours
Minimum 40
Common professional sequence ..... 23
Major requirements ..... 13-15
Professional semester ..... 17
Other requirements and electives ..... 36-38
D. Preparation for teaching in early childhood education (nursery school and kindergarten).
Semester Hours General education
Common professional sequence ..... 23
Major requirements ..... 12
Professional semester ..... 17
Other requirements and electives ..... 38

## THE COMMON PROFESSIONAL SEQUENCE

All candidates for the Bachelor of Arts-Teaching Program are required to take the courses in the common professional sequence as outlined below, and in addition one departmental methods course. The Department of Educational Psychology and Foundations must be consulted at the time of registration for beginning the common professional sequence.

First semester-Phase I
Semester Hours
20:017 Interpersonal Patterns (field experience) .................................... . 1
20:020 Interpersonal Influence Preferences (seminar) . . . . . . . . . . . . . . . . . . . . . . . . . 2
20:030 Dynamics of Human Development . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
Second semester-Phase II
26:020 Educational Purposes and Practices .......................................... . . 2
26:030 The Community and the Curriculum .......................................... . 2
20:018 Teacher as Change Agent (field experience) . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
Third semester-Phase III
20:040 Nature and Conditions of Learning. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
25:050 Classroom Evaluation Instruments . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
Student Teaching-
28:1xx (Course number denotes area in which experience is gained: $\mathbf{2 8 : 1 3 2}, 134,135,136,137,138,139$ )

Note: During the past several years the former common professional sequence included 20:014 Teacher and the Child, 20:016 Psychology of Learning, and 26:118 Social Foundations of Education, and part of this has been taken by some students. Students who have completed a portion of the previous program may substitute Phase II (excluding 20:018) for 26:118 and Phase III for 20:016.

Application for Approval in a teacher education program is made as a part of the student's declaration of a teacher education major. The student must pass such tests and meet such other standards as may be prescribed by the Committee on Teacher-Education Standards and Practices. For full approval, a student must have earned at least 24 semester hours of credit at the University of Northern Iowa and must have at least a $\mathbf{2 . 2 0}$ grade index in all of his course work. The committee may grant provisional approval for students in exceptional cases but may not grant full approval until all standards have been met. Normally a student will be expected to meet full approval by the beginning of the junior year if he wishes to complete requirements in the minimum time.

A student may, at the time of admission to the university, declare an intent to enter a teaching program and be assigned a teaching advisor from his first enrollment. The university must give special consideration to scholarship, health, character, personality, and quality of potential leadership of an applicant for a teaching curriculum.

Detailed information regarding admission and retention may be found in the brochure entitled Teacher Education, a statement of policies, requirements, and procedures for admission to and retention in teacher education at the University of Northern Iowa, which each student should obtain from the office of the Registrar.

Directed Experiences-At the University of Northern Iowa directed experiences in teaching and the observation of teaching are an integral part of the teacher-education curriculum. The emphasis on experimentation and creative approaches gives the student insight into turning theory into practice. The professional laboratory experiences include directed observation, participation, and the September Experience, to culminate in the actual period of student teaching in the senior year.

Directed observation gives the student an opportunity to see the teaching-learning operation without becoming involved in the on-going activity itself. In the participation experience, the student takes an active part under direction and guidance in the teaching-learning situation or other community activities. The September Experience calls for a student in teacher education to spend a brief period of time in an elementary or secondary school during late August and early September, and always includes the pre-school faculty workshop and the first several days of classes.

Student involvement in all of the directed experiences in teacher education is vital to the preparation of the prospective teacher. Observation and participation experiences are provided through specific courses in the teacher education program. The September Experience is voluntary and credit is not offered. These experiences give the student the background needed to make professional coursework and student teaching more meaningful.

Student teaching is a period of guided teaching varying in length from one half semester to a full semester. During this time the student assumes increasing responsibility for the teachinglearning activities in the classroom. The student receives eight (8) to sixteen (16) hours of credit and is evaluated on a pass/no credit basis. (See page 133.)

## MAJORS AND MINORS-GECONDARY SCHOOL TEACHING

Each student preparing to teach in the secondary school or in a special subject will choose not later than the beginning of the sophomore year one major. He will also select at least one minor if a minor requirement is indicated under the description of the major he has chosen. Even if not required, a student may select a second major or one or more minors.

The majors and minors will be chosen from the fields listed below. The specific requirements of each will be found at the beginning of the appropriate department's section of the chapter entitled Courses of Instruction.

Majors
Art
Asian Studies
Biology
Business Education
Chemistry
Earth Science
Economics
English
French
Geography
German
Health Education
History
Home Economics
Industrial Arts
Mathematics
Music
Physical Education (Men)
Physical Education and Health (Men)
Physical Education (Women)
Physics
Political Science
Psychology

## Religion

Safety Education
Science
Social Science
Sociology
Spanish
Speech
Speech Pathology
TEFL/Foreign Languages
Vocational Home Economics

## Minors

Biology
Business Education
Chemistry
Coaching
Coaching of Women's Sports
Dance
Earth Science
Economics
Education of the Handicapped-Secondary Level
English

## (Minors, continued)

English as a Foreign Language
Family Life Education
French
Geography
German
Health Education
Health
History
Industrial Arts
Journalism
Latin
Library Science

Mathematics
Music
Physical Education (Women)
Physical Education-Elementary
Teaching
Physics
Political Science
Psychology
Russian
Safety Education
Sociology
Spanish
Speech

To be approved for teaching in a major or minor area a student must make satisfactory grades in that area, must secure approval of the department, and pass such tests as the area department may require. A student may be held for additional work if he fails to demonstrate competence.

## MAJORS IN EARLY CHILDHOOD EDUCATION AND ELEMENTARY EDUCATION

These majors are given in specific detail under the Department of Curriculum and Instruction in the section entitled Courses of Instruction, pp. 109 and 110.


## MAJOR IN MIDDLE SCHOOL/JUNIOR HIGH SCHOOL EDUCATION

Complete program requirements for the Major in Middle School/Junior High School Education are given on page 111 under the listings of the Department of Curriculum and Instruction. Specific course patterns in each subject field offered for the Middle School/Junior High School Education Major may be found with the various department listings, pages 77 to 199.

## Bachelor of Arts-Liberal and Vocational Arts

All candidates on this program will complete the following pattern:
Semester Hours
General Education
Minimum 40
Major, Minor, Foreign Language, Electives
84
Not later than the beginning of the sophomore year each student enrolled on this program will choose one major from the list below. A minor is required for those majoring in geography. A knowledge of a foreign language is required or recommended for several majors. Specific information regarding the foreign language requirements will be found with the departmental listings. It is recommended that the student include in his electives a course in the literature of some language or languages other than English (in translation if not in the original).

## MAJORS AND MINORS

Specific requirements for the various majors and minors will be found with the departmental listings.
MAJORS

Accounting
American Studies
Anthropology
Art
Art-Design
Biology
Chemistry
Economics
English
English and Foreign Languages
English Linguistics
French
General Studies
General Studies for Registered Nurses
Geography
Geology
German
History
Home Economics
Home Economics in Business
Humanities
Individual Studies

Industry
Latin American Studies
Management
Marketing
Mathematics
Music
Office Administration
Philosophy
Philosophy and Religion
Physics
Political Science
Psychology
Recreation
Religion
Russian Area Studies
Science
Science: Environmental Planning
Social Work
Sociology
Spanish
Speech
Teaching English as a Foreign Language (TEFL)

Minors<br>Anthropology<br>Art<br>Art-Design<br>Asian Studies<br>Athletic Training<br>Biology<br>Business<br>Chemistry<br>Comparative Literature<br>Dance<br>Earth Science<br>Economics<br>Educational Media<br>English<br>English as a Foreign Language<br>Environmental Perceptions<br>French<br>Geography<br>German<br>Health

History
Home Economics
Industry
Journalism
Latin
Linguistics
Mathematics
Music
Philosophy
Physical Education (Women)
Physics
Planetarium Education
Political Science
Psychology
Religion
Russian
Sociology
Spanish
Speech

## Bachelor of Music Degree Curricula

All candidates for the Bacheior of Music degree will complete the following pattern:
Semester Hours
General Education ................................................................. . . 40
Music Requirements (applied; theory; history and literature;
recital, paper, or composition, electives)
73
General Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17
Total minimum hours . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 130
MAJORS:
Voice
Piano
Organ
Orchestral Instruments
Theory-Composition
Admission to this program may be granted upon the completion of 30 semester hours of outstanding work; however, admission will generally be considered upon the completion of 60 hours of acceptable work, an audition, or other acceptable evidence, and approval by the proper area faculty. It is recommended that the student include in his elective courses some work in French and German. Other languages are also acceptable.

Participation in a performance organization such as band, chorus, orchestra, music theatre, and other ensembles, is required of all degree students every semester in residence. Applied credit of one hour may be granted for each semester of participation but not more than six semester hours of credit may be earned toward the Bachelor of Music degree.

Teaching certificate. The Bachelor of Music degree does not provide for teaching certification, but it is possible to take part of the necessary work during the undergraduate program
and the remainder as a post-graduate and thus earn a teaching certificate. Such students must complete six (6) hours in music methods and 22 hours in the professional sequence as required on the Bachelor of Arts Teaching program. A course in American history or American government is also required for certification to teach. Upon completion of this work in addition to the Bachelor of Music degree, a student will be eligible to teach music in both elementary and secondary schools. (See Department of Music, page 153, for additional information.)

## Bachelor of Technology Degree Curricula

The requirements for each area are designed specifically for that particular program and are shown in detail in the statement of the major under the departmental listings in the section entitled Courses of Instruction (p. 179).

## Teaching Program

All candidates on the teaching (education) programs for this degree will choose one of the following patterns not later than the beginning of the sophomore year:
A. Preparation for teaching in area technical and community colleges.

Semester Hours
General Education. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . minimum 40

Related Technical . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Applied Science . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Professional sequence . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 23
Concentration in special area . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 22
133
B. Preparation for teaching industrial trades in area vocational-technical, and secondary schools.

Semester Hours
General Education. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Minimum 40
Mathematics-Science . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Related Trade . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 13
Applied Science . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9
Professional sequence . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 23
Supervision. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6
Concentration in special area, electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 21

## Technology Program

All candidates on this program will complete the following pattern:
Semester Hours
General Education . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 40
Mathematics-Science . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 28
Related Technical (required and electives) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 27
Applied Science . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Concentration in special areas . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 28

## Courses of Instruction

In the following pages, courses are designated by two numbers, separated by a colon. The first number refers to the department or area of the course; the second number refers to the specific course. For example, in the designated 60:111 the " 60 " refers to the Department of Art and the " 111 "' refers to the course. In registration always use the full number.

Courses 0-99 are primarilydesigned for freshman and sophomore students.
Courses 100-199 are primarily designed for junior, senior, and graduate students.
However, only those 100 -level courses whose numbers are followed by a " $g$ " provide graduate credit, e.g., 57:181(g). In all courses of the $100(\mathrm{~g})$ series greater academic achievement, both qualitative and quantitative, is expected of those receiving graduate credit than those receiving undergraduate credit.

Courses 200-299 are primarily designed for graduate students. Undergraduates seeking admission to graduate courses must secure the permission of the head of the department offering the course. Courses numbered 200 taken as an undergraduate cannot later be used for an advanced degree unless the student was eligible to earn graduate credit. See 201.

Students are classified as follows:
Earned Semester Hours
Freshman up to 31
Sophomore 32-63
Junior 64-95
Senior 96 and over
Graduate classification is earned by admission to graduate study.


## Course Numbers Common to Many Departments

These common numbers may be used under named conditions by prefixing the department number:

059, 159, 259-Reserved for temporary courses of a special or experimental nature.
133 or 233 WORKSHOP-1 to 6 hrs. Offered for special groups as announced in advance. Students may take work in one or more workshops but may not use more than 6 hours toward graduation.

086, 186, 286 STUDIES IN"_ "-Courses to be offered by departments for specialized work not covered by regular courses. Credit and topic for "study" to be given in Schedule of Classes.

198 Independent Study-Hours to be arranged in advance. A provision for students to do work in a special area not offered in formal courses. Permission of the head of the department offering the work is required. Projects must be approved well before the beginning of the semester in which the work is to be done. (See page 57.)

199 STUDY TOUR-1 to 8 hrs . Offered as announced in the Summer Bulletin and Schedule of Classes. See Summer Bulletin for general description and consult appropriate department for specific information.

285 Readings. Offered as needed in the various disciplines; not offered as a class. Independent readings from a selected list as approved in advance by department head. Credit to be determined at time of registration.

289 Seminar. Offered as needed in the various disciplines. Credit and topic to be given in Schedule of Classes.

297 Practicum-2-3 hrs. Offered as needed in the various disciplines to provide practical experience in college teaching.

299 ReSEARCH. For details of approval and registration, see pages 209 and 234.

## Individual Studies Program

Courses offered in the Individual Studies Program may have a prefix of 00:xxx instead of a department number. These include:

192 Exploratory Seminar - 1-3 hrs.
196 Interdisciplinary Readings - 1-3 hrs.
197 Undergraduate Thesis - 3-6 hrs.
198 Individual Study Project - Hours arranged by Individual Studies Director.
(See pages 30 and 198 for additional information.)

## Course Descriptions

In the pages immediately following are listed all the courses offered by the various departments of the university. Departments are listed alphabetically by colleges. Within each section the list of courses is preceded by the departmental requirements for the majors and minors as well as for the subject field on the middle school/junior high school major. For departments which cover a number of fields, the material has been subdivided. Requirements for graduate majors are listed under The Graduate Program, pp. 212-240.

# College of Business and Behavioral Sciences 

The College of Business and Behavioral Sciences houses nine instructional units: the School of Business, and the departments of Business Education and Office Administration, Economics, Geography, History, Home Economics, Political Science, Psychology, and Sociology, Anthropology, and Social Work. All units share a concern for understanding man in his social and economic relationships.

The college is the home of excellent professional programs as well as significant segments of the university's course offerings in the liberal arts. One commitment of the faculty is to assure that all students, including those in career-oriented programs, receive the benefits of a broad, liberal education. A complementary commitment exists in a college-wide concern that graduates have reasonable vocational opportunities.

All departments in the college cooperate in the preparation of teachers and all instructional units, except the School of Business, have programs which lead to a "Bachelor of ArtsTeaching," the requisite degree for certification in a discipline as a secondary school teacher. Two interdisciplinary programs housed within the college, namely programs in Asian Studies and Social Science, also lead to a teaching degree.

The "Bachelor of Arts" degree is awarded for studies in the liberal and vocational arts. Programs leading to non-teaching degrees are offered in accounting, marketing, and management and in all fields of the departments of Economics, Geography, History, Home Economics, Political Science, Psychology, and Sociology, Anthropology, and Social Work. The college also cooperates in intercollegiate programs leading to the Bachelor of Arts degree in American Studies and Latin American Studies.

Graduate education is an important component of the mission and responsibilities of the college. The School of Business has recently initiated a strong, new graduate degree program leading to a Master of Business Administration degree-M.B.A. The Master of Arts degree is awarded upon completion of excellent graduate programs in business education, geography, history, home economics, political science, sociology, and social science.

The primary function of the university and the College of Business and Behavioral Sciences is instruction. Every effort is made to provide a diversity of educational experiences tuned to the needs of the students. In addition to regular classroom activities, many students receive individualized instruction through field experiences, internship assignments, and individual study projects. The college offers or participates in a great variety of special, on-campus and off-campus programs and activities dedicated to enriching and deepening the educational experiences of its students.

Research and service are an integral part of the mission of the college. The Center for Business and Behavioral Research is an agency within the college which performs both research and service functions.

Vocational opportunities for graduates exist in a broad spectrum of positions in education, public and social service, commerce, and industry. Students in detailed information on careers may contact the college office or that of any department.

## Business, School of

Reuschling, Head. R. Abraham, Bereskin, J. Blanford, Chiattello, D. Davis, Denton, Dhavale, S. Diamond, Esbeck, Evenson, Goulet, Halverson, Hollman, Jedlicka, Kaplan, L. Keefe, Krause, Lebeda, Nicholas, Norem, Parasuraman, Premo, Pumroy, *Rod, Shives, Speaker, *Waller.
*on leave
Business CoreRequired on all business majors: 15:020; 15:050; 15:070; 15:100;15:151; 15:167; 15:175; 12:030; 12:031; 13:040; 92:053; 92:05437 hours
ACCOUNTING MAJOR
Required: Business Core ..... 37 hours
Required: 12:129; 12:130 ..... 6 hours
Electives: at least 12 hours from other accounting courses ..... 12 hours55 hoursStudents who qualify to sit for the CPA Examination in Iowa must include 12:131, 12:132, and12:134. In addition, the student should substitute the following sequence in place of $15: 100$ in theBusiness Core: 15:101, 15:102, and 15:104.
MANAGEMENT MAJOR
Required: Business Core ..... 37 hours
Required: 15:160; 15:163; 15:165 ..... 9 hours
Electives: at least 9 hours from one of the emphases listed below ..... 9 hours55 hours

1) Production Management: $15: 105 ; 15: 182 ; 15: 161$; 12:131; 15:170 (Sec. 2).
2) Financial Management: 15:152; 15:182; 92:113; 15:170 (Sec. 5).
3) Organizational Management: $15: 181 ; 15: 184 ; 15: 187$; 15:188; 15:170 (Sec. 2); 40:157.
MARKETING MAJOR
Required: Business Core ..... 37 hours
Required: 13:154; 13:158; 13:150; 13:151 ..... 12 hours
Electives: at least 6 hours from one of the emphases listed below ..... 6 hours1) Marketing Communications: $13: 147$ or 13:153; and one additionalcourse from 13:140, 13:142, 13:162, 13:147 and 13:153.
4) Marketing Channels: 6 hours from 13:141; 13:143; 13:155; 13:157; 13:164; 13:156.
BUSINESS MINOR
Required: 12:030; 13:040; 15:050 ..... 9 hours
Electives: at least 9 hours from one of the following areas-accounting, management, or marketing ..... 9 hours
18 hours

## ACCOUNTING

12:030. Principles of Accounting I-3 hrs. Introduction to basic language, principles, and procedures of accounting; emphasis on collection of data for external reporting.
12:031. Principles of Accounting II- $\mathbf{3}$ hrs.
Continuation of 12:030; emphasis on accounting for the corporate form of business. managerial accounting for decision making, financial statement analysis, and accounting for manufacturing firms.
12:129. Intermediate Accounting I-3 hrs.
Principles and procedures, particularly as applied in accounting for assets. Prequisite: 12:031.

## 12:130. Intermediate Accounting II-3 hrs.

Emphasis on accounting for liabilities and owners equity, developing statements from incomplete records, statement of changes in financial position. financial analysis and price-level accounting. Prerequisite: 12:129.
12:131(g). Cost Accounting- 3 hrs.
Uses of accounting data, job order and process cost accounting; cost - volume - profit relationships. budgeting, standard cost systems. Prerequisite: 12:031.

## 12:132(g). Income Tax-3 hrs.

Federal taxes as applied to individual and to business; emphasis on individual return. including pay-as-you go, social security, declaration, and payments.
12:134(g). Auditing-3 hrs.
Principles, practices, and procedures used to determine accuracy and reliability of financial records. Prerequisite: 12:130.
12:135(g). Advanced Accounting-4 hrs.
Accounting for partnerships, special sales procedures, consolidations, and governmental units. Prerequisite: 12:130.

## 12:138(g). Auditing Practice-2 hrs.

Writing of formal audit reports, EDP audits; official auditing bulletins and case studies; discussion of current topics. Prerequisite or corequisite: 12:134.
12:140(g). Accounting Systems- $\mathbf{3}$ hrs.
Analysis of modern accounting systems with emphasis on system building; application of data processing methods to system development with speical attention to the use of electrical and electronic devices. Prerequisite: 12:130.
12:141(g). Advanced Cost Accounting- 3 hrs .
Continuation of 12:131. Emphasis on cost techniques necessary for management decision making. Prerequisite: 12:131.
12:142(g). Advanced Income Tax- $\mathbf{3}$ hrs.
Advanced phases of income taxation as related to partnerships and corporations and estate and gift taxes; problems which require investigation of concepts and theories of taxable income.

## 12:148(g). C.P.A. Review- 3 hrs.

Designed to aid candidates in developing approaches to solutions of problems and answers to questions in the CPA examinations. Prerequisite:

Qualified to sit for CPA examinations.
12:149(g). Problems in Computer Accounting- 4 hrs. A project course in which the student analyzes business situations to determine accounting data needed, writes computer programs, and presents resulting data in the form of management reports. Prerequisites: 15:167; 12:131.
$\mathbf{1 2 : 2 3 0}$. Accounting Survey and Analysis- $\mathbf{3} \mathbf{~ h r s . ~}$
Basic accounting concepts and procedures; determination of periodic income; preparation and interpretation of financial statements. Open only to graduate students without previous credit in accounting.
12:240. Theory of Accounts- 3 hrs .
History and development of accounting principles; theoretical problems related to determination of income; presentation of financial condition. Prerequisite: 12:130 or equivalent.
12:262. Managerial Accounting- 3 hrs.
Use of accounting data in managerial decisionmaking process and in the analysis and control of business operation. Prerequisites: 12:030 and 12:031; or 12:230; or equivalent.

## MARKETING

13:040. Principles of Marketing- $\mathbf{3}$ hrs. Facets in the distribution of goods and services. 13:140(g). Consumer Behavior- 3 hrs.
Study of recent findings of psychologists, sociologists, anthropologists, and marketers in relationship to consumer behavior. Prerequisite: 13:040.
13:141(g). Retailing- $\mathbf{3}$ hrs.
Behavioral trends of U.S.A. retailing: Survey of organization, buying, selling, and supporting activities of retail, service, and wholesale establishments.
13:142(g). Advertising- 3 hrs.
Functions of advertising display and visual merchandising, techniques and media of advertising. and sales promotion techniques.
13:143(g). Retail Merchandising- $\mathbf{3}$ hrs.
Prerequisite: 13:141.
13:147(g). Advertising Management- $\mathbf{3}$ hrs.
Decisions advertising executives make. Emphasis on selection of media, establishing, and operating advertising budgets, and evaluating advertising effectiveness.

## 13:150(g). Marketing Management-3 hrs.

A comprehensive study of problems encountered by marketing executives in modern business. Prerequisite: 6 hours of credit in marketing. Prerequisite: 13:151.

## 13:151(g). Marketing Research-3 hrs.

Procedures used in defining a marketing problem and carrying out the research necessary for its proper solution. Prerequisite: 15:070 and 6 hours of credit in marketing.

## 13:153(g). Sales Management- $\mathbf{3}$ hrs.

The management problems relating to recruiting, training, and control of sales personnel. Methods of assigning sales territories and determining quotas.

## 13:154. Marketing Communications- $\mathbf{3}$ hrs.

Integrated analysis of basic marketing communication techniques used to further marketing goals; elements of the marketing communications system; consumer decision process and influencing variables.

## 13:155(g). Industrial Marketing- 3 hrs.

Marketing problems of manufacturers of industrial goods.
13:156. Agribusiness- 3 hrs.
Marketing problems in national and international food and fiber industries; agricultural product industries at various stages: retailing, wholesaling, processing, farming and farm supply; effect of technological, economic, social and political environments on the production and marketing of agricultural products.

## 13:157(g). International Marketing- $\mathbf{3}$ hrs.

Marketing practices and trends in businesses serving foreign markets.
13:158. Marketing Channels- $\mathbf{3}$ hrs.
Integral role of marketing channels as components of marketing strategy.

13:162(g). Advertising Communications- $\mathbf{3}$ hrs. A problem approach to the writing of advertising copy (printed, audio, and visual), story-boards, layouts, and campaigns.

13:164(g). Physical Distribution Management-3 hrs. Physical distribution of consumer and industrial goods; regulatory environment of the transportation industry (air, rail, motor carrier, water, and mass transportation) explored through case discussions.

13:251. Marketing Theory-3 hrs.
Evolutions of marketing concepts and future marketing influences; contributions of economic and behavorial sciences to marketing thought; implication of marketing theory to management practice.

## 13:257. Multinational Business- $\mathbf{3}$ hrs.

Cultural, economic, and political developments of major trading areas of the world; their roles as producers and consumers in world markets; problems of organizing, financing, and operating affiliates and subsidiaries doing business abroad; marketing problems of multinational business.

## 13:263. Marketing Management- $\mathbf{3}$ hrs.

Integrated approach to marketing from managerial viewpoint using economic, quantitative, and behavorial concepts in analyzing and developing framework for decision making and implementing a marketing program. Prerequisite: 13:040 or equivalent.

## MANAGEMENT

## 15:010. Development and Structure of American Industry- $\mathbf{3}$ hrs.

The development of American business in a dynamic socio-economic system.

15:020. Quantitative Methods for Business- 4 hrs.
Quantitative aspects of business-problem solving and decision making. Covers linear systems, matrix algebra, linear programming. Prerequisite: 80:020 or equivalent.
15:050. Fundamentals of Management- $\mathbf{3}$ hrs.
Basic principles of management with emphasis on the behavorial approach to the scientific management of organization.
15:070. Business Statistics- $\mathbf{3}$ hrs.
A functional approach to descriptive inductive uses of statistics as tools of business management. Prerequisite: 15:020.
15:100. Social Forces and the Law- $\mathbf{3}$ hrs.
Non-technical approach to the law and society with emphasis in the area of business law; how our society is governed; social forces that make the law: law in operation.
15:101(g). Business Law I-2 hrs.
Contracts and sales.
15:102(g). Business Law 11-2 hrs.
Partnerships, corporations, and commercial paper.
15:104(g). C.P.A. Law Review-3 hrs.
Intensive study of Business Law to prepare accounting students for the law part of the C.P.A. examination. Prerequisites: 15:101; 15:102; qualified to sit for C.P.A. examination.
15:105(g). Labor Law- 3 hrs.
Analysis of the interrelationships between the development of labor organizations and the techniques used to further their interests; the actions and decisions of the executive, legislative, and judicial branches of government, labor management, problems, and the economic and social consequences. Prerequisite: 15:040.

## 15:107(g). Arbitration and Collective Bargaining - 3 hrs.

Collective bargaining; strategies and tactics; issues in collective bargaining; arbitration provisions of the Taft-Hartley Act; the arbitration proceeding. Case problems. Prerequisite: 15:105.
15:110(g). Linear Programming- $\mathbf{3}$ hrs.
Basic principles; techniques of formulation; simplex algorithm; Kuhn-Tucker Conditions; duality and sensitivity analysis; relationship to game theory: applications. Prerequisites: 15:020; 15:070; or equivalent.
15:151(g). Corporation Finance- $\mathbf{3}$ hrs.
Study of role of finance function within the corporate enterprise. Prerequisites: 12:30; 12:31.
15:152(g). Business Investments- $\mathbf{3}$ hrs.
A study of investment policy. Measuring investment return; factors of choice in investments; types of industrial and non-industrial investments. Prerequisite: 15:151.

## 15:160(g). Organization Theory- $\mathbf{3}$ hrs.

Emphasis on the formal organization as an open socio-technical system; relations of the organization to larger environmental systems; methods and patterns in organizational analysis. Prerequisite: 15:050.

## 15:161(g). Production Management-3 hrs.

Basic principles of management in the production phase of business; mechanization, the division of labor, specialization, standardization. Work flow and plant layout, machines and automation, methods of control. Prerequisites: 15:020; 15:070.

15:162(g). Risk Management and Insurance- $\mathbf{3}$ hrs. Fundamentals of risk and of insurance as they apply to financial management.
15:163(g). Management Decision Making-3 hrs.
The nature of organizational decisions; problem identification and structuring; methods of decision making on the certainty-uncertainty continuum. Prerequisites: 15:020; 15:050; 15:070; 15:160; 15:165; 92:954.

## 15:165(g). Individual and the Organization- $\mathbf{3}$ hrs.

Concepts of the individual; the individual's relationships with his peer group; individual and group relationship with the total organization.
15:167(g). Basic Computer Concepts- $\mathbf{3}$ hrs.
An introduction to the techniques and procedures of data processing. Analysis and study of data processing systems, including punch card equipment and electronic computers.
15:169(g). Business Internship- $\mathbf{2 - 8}$ hrs.
A full-time business internship extending for a minimum of eight weeks. The internship may be in (1) Accounting, (2) Management, or (3) Marketing. Prerequisite: departmental approval.
15:170(g). Problems- $\mathbf{1 - 3}$ hrs.
Credit determined at registration. Student will choose one of the following areas:

1. Accounting
2. Management
3. Marketing
4. Law
5. Finance

May be repeated with the concentration in different areas. Prerequisite: Consent of the head of the department.

## 15:175. Business Policies- $\mathbf{3}$ Hrs.

Interpretation of relationships between the various business disciplines and utilization in administrative decision making. For senior business majors.
15:181(g). Management Information Systems- $\mathbf{3}$ hrs. Information systems analysis and design for communication techniques in the organization; analysis and design for management decision making and control. Prerequisites: 15:020; 15:070; 15:167.
15:182(g). Capital Budgeting- $\mathbf{3}$ hrs.
Economic analysis and financing of business capital project alternatives; measuring return on investment, evaluating risk, cost of capital, planning capital structure, appraising alternative investment
opportunities when capital is rationed, leasing vs. ownership, and tax consideration. Prerequisite: 15:163.

## 15:184(g). Technology, Environment, and Organization- $\mathbf{3}$ hrs.

A systems analysis of the technology employed by an organization, the socio-economic environment faced by the organization, and how these two variables influence organizational structure, behavior, and performance. Prerequisites: 15:160; 15:165. May be taken simultaneously with 15:163.
15:187(g). Organizational Behavior- $\mathbf{3}$ hrs.
An extension and enlargement of the concepts presented in 15:165. Prerequisites: 15:160;15:165. May be taken simultaneously with 15:163.
15:188(g). Planning and Policy Making- 3 hrs .
Techniques of long and short-range planning, policy making, and control. Prerequisites: 15:160; 15:165. May be taken simultaneously with 15:163.
15:210. Legal and Social Environment of Business -3 hrs .
Investigates the judicial process, organization of the legal system, and the conceptual development of this system with substantive emphasis in the area of antitrust, trade regulation, and labor-management.
15:220. Advanced Business Statistics- $\mathbf{3}$ hrs.
Multiple linear regression and correlation of business and economic data. Analysis of variance, residuals; use of dummy variables; stepwise regression and statistical model building. Applications. Prerequisite: 15:070.
15:260. Administrative Theory and Practice- $\mathbf{3}$ hrs.
Advanced topics in decision making, planning, cybernetics, and applied systems.

## 15:262. Managerial Concepts- $\mathbf{3}$ hrs.

Analysis of current administrative philosophy and practices, their historical foundations; integration of an organization from the administrator's viewpoint. Prerequisite: 15:050 or equivalent.
15:263. Financial Management-3 hrs.
Concepts of financial management for the student having the basic background; emphasis on theoretical approach to complex problems (capital acquisition, analysis of capital projects, and financial analysis).
15:264. Advanced Financial Management- 3 hrs.
Financial decision making for student with the basic background in business and introductory finance; expands practical ability to deal with complex financial decisions.

## 15:266. Statistical Decision Making- $\mathbf{3}$ hrs.

Role of sampling and statistical control procedures in managerial decision making under conditions of risk and uncertainty. Fundamental probability distributions and their use in classical and Bayesian inference. Prerequisite: 15:020; 15:070; or equivalent.
15:267. Operations Management- 3 hrs .
Introduction to analysis, design, and management of systems. Prerequisites: 15:070; 15:167; or equivalent.

15:285. Individual Readings- $\mathbf{1 - 2}$ hrs.
Directed readings and reports. May be repeated for a maximum of 4 hours.
15:289. Seminar in Business Policy- $\mathbf{3}$ hrs.
Should be taken in student's last semester of graduate study.
15:297. Practicum.
15:299. Research.

## Business Education and Office Administration

Warner, Head. M. Blanford, Corbin, Ditzenberger, Hahn, Handorf, G. Hansen, Humphrey, Klink, *Reed, Timpany.
*on leave

BUSINESS EDUCATION MAJOR-TEACHING
Required: 12:030; $15: 010 ; 15: 100$ or $15: 101$ or $15: 102$;
18:070; 17:180; 24:131; 92:053
18-19 hours
Required: One of the emphases listed below-
(minimum total). . . . . . . . . . . . . . . . . 50 hours
Emphases: A student must complete one of the following emphases in addition to the core requirements. The student may elect to take credit in any course by examination. It is recommended that at least two methods courses be completed prior to student teaching.
A. General Business: Required: 12:031; 13:040; 13:140; 14:051; 17:190 (Accounting/Data Processing, Basic Business/Consumer Economics, and one in a skill area); 31:177 or 92:054; and one law course not taken in departmental course requirements.

Electives: A minimum of 13 hours taken from the following: 14:012; 14:047; 14:050; $14: 053 ; 14: 055 ; 14: 151: 14: 158 ; 15: 167 ; 17: 114 ; 17: 119 ; 17: 170 ; 17: 190 ; 18: 113 ; 18: 117$.
B. Accounting: Required: $12: 031 ; 12: 129 ; 12: 130 ; 14: 012 ; 14: 051 ; 17: 190$ (Accounting/Data Processing, Basic Business/Consumer Economics, and one methods in skill area); and 12 semester hours from other courses in accounting or 15:167.

Electives totaling 5 hours from business law, marketing, management, finance, statistics.
Students who wish to sit for the C.P.A. examination in Iowa must include: 12:131, 12:132, and 12:134, and must have credit in four of the following six areas: economics, management, finance, law, marketing, statistics.
C. Secretarial: Required: $14: 012 ; 14: 051 ; 14: 060 ; 14: 151 ; 14: 152 ; 14: 158 ; 17: 190$ (typewriting, shorthand, and one non-skill).

Electives totaling 13 hours chosen from: $12: 031 ; 14: 053 ; 14: 055 ; 14: 154 ; 15: 167 ; 17: 113$;

17:114: 17:118; 17:119; 17:140; 17:170; 17:190; 18:113; 18:117.
D. Distributive Education (provides additional certification as teacher-coordinator): Required: 13:040; 13:141; 13:154; 14:047 (or equivalent as established by UNI competency examination); 17:040; 17:113; 17:114; 17:118; 17:119; 17:140; 17:190 (Distribution I and II and Microteaching).

Electives: Six hours from 13:142; 13:143; 13:150; 13:151; 13:162. 3,000 hours of work experience in distributive occupations approved by a distributive education teacher educator for quality, recency, and diversity. ( 1,000 hours are earned for each semester of Coordinated Occupational Experience, 17:111, to a maximum of 2,000 hours.)

Student teaching in distributive education or an approved substitute.
Majors with this emphasis should plan to participate in co-curricular activities to expand their knowledge of the values and procedures of the vocational club movement. This includes D.E.C.A. conferences and activities of Collegiate D.E.C.A. at UNI.
E. Office Education (provides additional certification as teacher-coordinator): Required: 14:012; $14: 051 ; 14: 060 ; 14: 151 ; 14: 152 ; 14: 158 ; 17: 113 ; 17: 114 ; 17: 118 ; 17: 119 ; 17: 140 ; 17: 190$ (typewriting, shorthand, and micro-teaching).
(Students released from any business education requirements should elect courses from the following: $12: 031 ; 14: 053 ; 14: 154 ; 15: 167 ; 17: 111 ; 18: 113 ; 18: 117$.

3,000 hours of work experience in office occupations approved by an office education teacher educator for quality, recency, and diversity. ( 1,000 hours are earned for each semester of Coordinated Occupational Experience, 17:111, to a maximum of 2,000 hours.)

Student teaching in Office Education or an acceptable substitute.
Majors with this emphasis should plan to participate in co-curricular activities to expand their knowledge of the values and procedures of the vocational club movement. This would include O.E. conferences and other activities of the O.E. Club at UNI.

## OFFICE ADMINISTRATION MAJOR

Required: 12:030; 12:031; 15:050; 18:070; 18:113; 18:117; 18:119; 92:053 ............ . 23 hours
Electives: $\mathbf{3 2}$ hours from areas listed below and approved by
the student's adviser .............................................................. 32 hours
55 hours

## Areas:

1. Accounting: 12:129; 12:130; 12:131; 12:132.
2. Marketing: 13:040; 13:140; 13:154.
3. Management: $15: 105 ; 15: 107 ; 15: 151 ; 15: 165 ; 15: 181 ; 15: 184$.
4. Office Administration: 18:169.
5. Secretarial: 14:047; 14:050; 14:051; 14:053 or 14:055; 14:158; 14:012; 14:151; 14:152.
6. Psychology: 40:157; 40:158.
7. Speech: 50:163.

## BUSINESS EDUCATION MINOR-Teaching

Required: 12:030; 12:031; 14:051; 15:010; 15:100 or 15:101 or 15:102;
17:180; 190 (Typewriting); 17:190 (Basic Business/Consumer Economics or Accounting/Data Processing); plus electives in Business and Business Education to total

24 hours
The student desiring this minor is expected to plan a program with a Business Education adviser. A minimum of 24 hours is required for the minor; and a student may find additional hours necessary since at least two courses in a subject-matter area are ordinarily required for certification.

## SECRETARIAL

14:012. Business Machines-Calculating-2 hrs.
Basic machine operation with opportunity for skill development. Review of business mathematics and business applications. Adding and calculating machines, including electronic calculators. Discussion, 2 periods; lab., 2 periods arranged.
14:047. Typewriting $1-2$ hrs.
Beginning course for students with little or no previous typewriting instruction. Class, 2 periods; lab., 3 periods arranged.

## 14:050. Typewriting II-2 hrs.

Techniques, speed, and control; office-type problems. Class, 2 periods; lab., 3 periods arranged. Prerequisite: 14:047 or one semester of high school typewriting or equivalent.

## 14:051. Typewriting III-2 hrs.

Development of typing skills in specialized fields such as legal, medical, technical, government, and military; special work on executive-type problems. Required for approval to teach typewriting. Class, 2 periods; lab., 3 periods arranged. Prerequisite: 14:050 or one year of high school typewriting or equivalent.
14:053. Beginning Shorthand-Gregg-4 hrs.
For students with no previous training in Gregg, Shorthand. Required for students in teacher preparation program. Corequisite: 14:050 or equivalent. Daily.

## 14:055. Beginning Shorthand-Forkner-4 hrs.

Complete course in a combination alphabet-symbol shorthand. Recommended for those desiring a vocational skill in shorthand. Prerequisite: ability to type. Daily.

## 14:060. Machine Transcription and Word

 Processing- 1 hr .Machine transcription and dictation. Includes study of magnetic tape and magnetic card concepts.
14:151(g). Business Machines-Duplicating- $\mathbf{3}$ hrs.
Preparation of administrators and business teachers; includes selection of media and operation and supervision of duplicating equipment. Prerequisite:
14:050 or equivalent.
14:152(g). Executive Secretarial Procedures- $\mathbf{3}$ hrs.
Secretarial duties, responsibilities, and procedures. Finishing course for those planning careers in teaching or in secretarial work. Includes practical application of secretarial skills and knowledges. Prerequisite: 14:051 or equivalent.

## 14:154(g). Touch Shorthand- $\mathbf{3}$ hrs.

Introductory course in machine shorthand. Prerequisite: ability to type.
14:158(g). Advanced Shorthand/Transcription-4 hrs. Develops competency in taking dictation, but places a major emphasis on the development of transcription techniques and procedures. Prerequisite: either 14:053 or 14:055; and 14:050 or equivalent.

## BUSINESS EDUCATION

## 17:040. Salesmanship- $\mathbf{3}$ hrs.

Fundamentals of selling with emphasis on the development of effective sales techniques.

## 17:111(g). Coordinated Occupational Experience -2 hrs .

Job analysis and job training techniques, principles of supervision and human relations principles applied to the student's own jobs. May be repeated, once in fall and once in spring, for a maximum of 4 hours. Corequisite: Employment in an approved occupation.
17:113(g). Administration of Vocational Education Programs- $\mathbf{3}$ hrs.
Objectives, operation, and coordination and vocational programs; emphasis on office and distributive occupations.

## 17:114(g). Foundations of Vocational Education -2 hrs .

Development of vocational education within the framework of career education and the roles of teachers, administrators, and guidance personnel in these programs. Explores principles, practices, organizational patterns and contemporary issues.

## 17:118(g). Continuing Business Education Programs- $\mathbf{2}$ hrs.

Business teacher's role in continuing business occupations programs. Methods and materials appropriate for adult learners.
17:119(g). Curriculum and Instruction in Business Occupation Programs- 3 hrs.
Curriculum and instruction for distributive and office education programs.

## 17:140(g). Post-Secondary Business Education Programs- 2 hrs.

Planning, organization, and administration of postsecondary business education programs in community college or area vocational school settings. Teaching techniques and resources appropriate for such programs.
17:170(g). Problems in Business Education- $\mathbf{1 - 3}$ hrs. Credit determined at registration. Offered in areas indicated in the Schedule of Classes. May be repeated for a total of 6 hours. Designed for 9 weeks or one semester individualized study program. Prerequisite: consent of instructor.
17:180. Principles of Business Education-2 hrs.
Open to majors and minors in Business Education: others should consult the head of this department.
17:190. Methods-1-2 hrs.
Students must earn credit in more than one area. Recommended for junior year.
17:193(g). Individual Instruction Laboratory-2 hrs.
Supervised practice in designing individualized learning experiences for students with varied occupational objectives. Prerequisite: 17:119 or consent of instructor.
17:203. Foundations in Business Education- $\mathbf{2}$ hrs.
Trends, objectives, curricula, principles, and philosophy of business education.

## 17:207. Curriculum Development in Business Education-2 hrs.

History, present status, philosophy, trends, and factors of curriculum development in business education for junior high school, senior high school, and post-high school curriculums including vocational and non-vocational programs.

17:245. Current Topics in Business Education-2 hrs. May be offered in different areas as indicated in the Schedule of Classes. Prerequisite: Teaching experience in area selected or consent of instructor.
17:280. Seminar in Business Education-2 hrs. May be repeated for a maximum of 6 hours.
17:284. Vocational Interdisciplinary Seminar-2 hrs. Intended primarily for those who teach or administer vocational programs, particularly at the post-secondary level. Explores correlation and cooperation of efforts among the vocational disciplines. May be repeated for a maximum of four hours of credit.

## 17:285. Individual Readings-1-2 hrs.

Directed readings and reports. May be repeated for a maximum of 4 hours. Prerequisite: consent of department head.

## 17:290. Improvement of Basic Business Instruction-2 hrs.

17:291. Improvement of Bookkeeping Instruction -2 hrs .
17:292. Improvement of Typewriting Instruction -2 hrs .
17:293. Improvement of Shorthand Instruction - -2 hrs .

## 17:294. Improvement of Office Education Programs-2 hrs.

Improvement of coordination techniques and new materials in office education programs.
17:297. Practicum-2 hrs.
Prerequisite: consent of department head.
17:299. Research-1-3 hrs.
Prerequisite: consent of department head.

## OFFICE ADMINISTRATION

18:070. Introduction to Data Processing-2 hrs.
Concepts and procedures of data processing. Laboratory experiences include use of card punch machine and computer terminal facilities.
18:113(g). Office Communications- $\mathbf{3}$ hrs.
Communication theory as basis for understanding of the principles of oral and written communication. Emphasis on administration of the communications function.
18:117(g). Office Administration- $\mathbf{3}$ hrs.
Fundamentals of office organization and administration, office equipment, supplies, layout, cost control, personnel problems, job analysis, and job specifications.

## 18:119(g). Administration of Human Resources -3 hrs .

Fundamentals of supervision and human relations techniques with emphasis on development of administrative techniques of human resources.
18:169(g). Office Administration Internship-2-8 hrs. Prerequisite: Departmental approval.
18:289. Office Administration Seminar-1-3 hrs.
Prerequisite: Departmental approval.


Dean Robert Morin

## Economics

B. W. Anderson, Head. F. Abraham, Bumpass, D. Cummings, Gillette, Pratt, Strein, Tulasiewicz.
ECONOMICS MAJOR-TEACHING
Required: 90:190; 92:053; 92:054; 92:139; 92:141 ..... 15 hoursElectives in economics, which may include 6 hoursfrom 80:045 or 80:060; 80:172; 96:134; 97:183.18 hours
33 hours
A minor is required.
ECONOMICS MAJOR
Required: 92:053; 92:054; 92:139; 92:141 ..... 12 hours
Electives in economics, which may include 6 hours from 80:045 or 80:060; 80:172; 96:134; 97:183 ..... 21 hours
33 hours
No minor is required.
ECONOMICS MINOR-Teaching and Liberal Arts
Required: 92:053; 92:054; 92:139; 92:141 ..... 12 hours
Electives in economics, which may include 3 hours from 80:045 or $80: 060 ; 80: 172 ; 96: 134 ; 97: 183$ ..... 6 hours

Note: 92:053 and 92:054 are prerequisites for all $100(\mathrm{~g})$ economics courses.

92:024. Economics for General Education- $\mathbf{3}$ hrs. No credit for student who has credit in 90:024, 92:053, or 92:054. May not be used for credit on major or minor.
92:053. Principles of Macro-Economics- $\mathbf{3}$ hrs. Determining and measuring the level of national product; monetary and fiscal policies to stabilize the economy. Sophomore standing recommended.

## 92:054. Principles of Micro-Economics- $\mathbf{3}$ hrs.

 Determination of price by demand and supply: distribution of income. Prerequisite: 92:053. 92:100(g). Introduction to Econometrics- $\mathbf{3}$ hrs. Econometric techniques and the development of statistical techniques unique to the economics; econometric relationships derived in single and multivariate linear and non-linear regression analysis; use of statistical inference in econometric investigation with applications to the classical works of economic topics.92:113(g). Money and Banking- 3 hrs .
Money, commercial banking, the Federal Reserve System and monetary policy.
92:116(g). Labor Economics- 3 hrs.
Labor economics, union-management relationships. and public policy toward employer-employee relationships.
$92: 117(\mathrm{~g})$. Public Finance- 3 hrs .
Taxation and government expenditures; fiscal policy.

92:120(g). Mathematical Economics- $\mathbf{3}$ hrs.
Introduction to quantitative methods and theory with an exposition of statistical techniques for understanding econometric research and quantitative policy recommendations.
92:135(g). The Organization of American Industry -3 hrs .
Structure, conduct and performance of firms, industries and market. Policies to maintain competition.
92:136(g). International Economics- $\mathbf{3}$ hrs.
Comparative advantage, exchange rates, balance of payments, and trade policies.
92:137(g). Comparative Economic Systems- $\mathbf{3}$ hrs. Examination of the capitalistic and socialistic economies through the works of their defenders and critics.

## 92:139(g). Intermediate Micro-Economic Theory -3 hrs .

Intermediate level micro-economics. The theory of consumer choice, of the business firm and of resource allocation.

## 92:141(g). Intermediate Macro-Economic Theory -3 hrs .

Intermediate level macro-economics. The determinants of aggregate demand, national product and employment; macro-economic objectives and policies.

92:143(g). Economic Development-3 hrs.
Theories of underdevelopment; approaches and proposals for development; factors influencing development.

## 92:150(g). Monetary Economics- $\mathbf{3}$ hrs.

Monetary theory, the supply of money, the demand for money, monetary policy, and current monetary issues. Prerequisites: 92:113 and 92:141.
92:170(g). History of Economic Thought- $\mathbf{3}$ hrs.
Development of economic theory from the early Greeks to the present time.

## 92:180(g). Economic Principles- $\mathbf{3}$ hrs.

Graduate-level introduction to principles of economics; includes both macro- and micro-principles. Prerequisite: consent of instructor.

## 92:210. Managerial Economics- $\mathbf{3}$ hrs.

An analytical approach to business management; explores business decision making within the structure of micro-economics.

## 92:220. Economic Growth-3 hrs.

Comparison and explanation of growth rates of advanced economics. Policies to increase growth. Benefits and costs of growth.
92:224. Economic Fluctuations- $\mathbf{3}$ hrs.
Nature, sources and treatment of economic fluctuations. Theories of economic fluctuation and policies to reduce economic fluctuations.

## 92:232. Soviet Economy-3 hrs.

Soviet economic institutions; operation and performance of the Soviet economic system.
92:234. International Finance- $\mathbf{3}$ hrs.
International financial theories, institutions and policies; analysis of the balance of paymentey capital flows, disequilibrium and international mom etary adjustments.
92:280. Seminar in Economics- 3 hrs.
92:285. Individual Readings- $1-3 \mathrm{hrs}$.
92:299. Research.

## Geography

Nijim, Head. Austin, *R. Chung, Clark, L. Goodman, Gunter, Lu.<br>*on leave

## GEOGRAPHY MAJOR-TEACHING

Required: 90:190; 97:010 or 97:025; 97:031; 97:101; 97:109; 97:120 . . . . . . . . . . . . 17-18 hours
Required: 97:150 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2-3 hours
Electives in geography . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-17 hours
36 hours
A minor in another teaching area is required.

GEOGRAPHY MAJOR
Required: 97:010 or 97:025; 97:031; 97:101; 97:109; 97:120 . . . . . . . . . . . . . . . . . . . . . 14-15 hours
Required: 97:150 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2-3 hours
Electives in geography . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18-20 hours
36 hours

GEOGRAPHY MINOR-Teaching and Liberal Arts
Required: 97:010 or 97:025 or 97:031 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2-3 hours
Required: 97:150 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2-3 hours
Electives in geography . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12-14 hours
18 hours

97:010. Human Geography-2 hrs.
Interaction between man and his environment. Spatial patterns of: population distribution, population characteristics, population movement, livelihood, economics.

## 97:025. World Geography- $\mathbf{3}$ hrs.

97:031. Elements of the Natural Environment-3 hrs. Major elements of the natural environment: weather and climate, oceans, landforms, vegetation, and soils; analysis of relationships and of patterns. Lecture, 2 hours; lab., 2 hours.
97:050. Communicating Through Maps- $\mathbf{2}$ hrs.
Use and evaluation of maps; understanding and reading of maps; map symbols and design studied in terms of cultural and physical phenomena. No credit toward a geography major.
97:101. Maps and Map Interpretation- 3 hrs.
Cartographic drawing and map symbolism. Use and evaluation of maps. Field mapping and airphoto interpretation. Lecture, 2 periods; lab., 2 periods. Prerequisite: 97:010 or 97:025 or 97:031, or consent of instructor.

## 97:105(g). Advanced Cartography- 3 hrs.

Elements of map reproduction, map design, representation of landforms and the use of color in maps. Map projections. Mapping and charting quantitative relationships. Lecture, 2 hours; lab., 2 hours. Prerequisite: 97:101 or consent of instructor.
97:107(g). Use and Interpretation of Aerial
Photographs- $\mathbf{3}$ hrs.
Introduction to the basic principles of photogrammetry and air photo interpretation. Emphasis on interpretation and mapping of surface features. Prerequisite: consent of instructor.

## 97:109(g). Quantitative Methods in Geography -3 hrs .

Application of selected mathematical models and statistical techniques (descriptive and inferential) to the analysis of areal problems. Prerequisite: either 97:010 or 97:025 or 97:031 or consent of instructor. Lecture, 2 hours; lab., 2 hours.
97:110(g). Climatology- $\mathbf{3}$ hrs.
The elements and controls of climate and their world distribution; climatic classification and distribution of climatic types. Prerequisite: 97:031, or consent of instructor.

## 97:112(g). Landform Analysis-3 hrs.

Landforms - their development, distribution of major types, and association with other natural phenomena. Emphasis on methods of morphometric and descriptive analysis. Prerequisite: 97:031 or consent of instructor.

## 97:120. Economic Geography-3 hrs.

Analysis of the location and spatial structure of economic activities in major world regions. May provide credit in Economics. Prerequisite: either 97:010 or 97:025 or 97:031 or consent of instructor.
97:125(g). Geography of Transportation: Planning and Evaluation- $\mathbf{3}$ hrs.
Agents, routes, terminal complex, and basic commodity exchange services of transportation (land.
water, air) within the framework of regional and interregional relationships. Prerequisite: 97:010 or 97:025 or 97:031 or consent of instructor.
97:130(g). Cultural Geography-3 hrs.
A systematic study of cultural geography, with emphasis on the cultural elements of the landscape, their processes, area association and differentiation. Prerequisite: either $97: 010$ or $97: 025$ or $97: 031$ or consent of instructor.
97:132. Urban Geography- $\mathbf{3}$ hrs.
The association of the activities in urban areas as expressed in characteristic associations of land use and occupance features. Prerequisite: either 97:010 or 97:025 or 97:031 or consent of instructor.
97:134(g). Location, Land Use, and Spatial
Economics Behavior- $\mathbf{3}$ hrs.
Spatial influences on economic behavior, including location, production, consumption, trade, and development. Prerequisite: 97:109 or 97:120 or 92:053 or consent of instructor.
97:135(g). Urban Location and Land Use- 3 hrs.
Theories and models for urban location, form, and structure; major focus on public policy. Prerequisite: 97:132 or consent of instructor.
97:136(g). Rural Location and Land Use- $\mathbf{3}$ hrs.
Physical, regional, economic, and institutional factors in a rural environment; returns from land; land value; property rights and tenure rights; rural a.o. urban land development. Prerequisite: 97:120 or 92:053 or consent of instructor.
97:140(g). Historical Geography of the United States- $\mathbf{3}$ hrs.
Prerequisite: either 97:010 or $97: 025$ or 97:031 or consent of instructor.
97:142(g). Industrial and Regional Analysis- $\mathbf{3}$ hrs. Locational theory applied to the relationship between geographic facts in the industrial location process; case studies of selection and evaluation of industrial sites; factors affecting location of commercial activities. Prerequisite: 97:120 or 92:053 or consent of instructor.
97:150(g). Regional Geography-2-3 hrs.
Regions to include: (1) Anglo-America, (2) South America, (3) Europe, (4) Africa, (5) East and South Asia, (6) the Middle East, (7) the Soviet Union, (8) Iowa. May be repeated for credit only by taking different regional sections. Topic to be announced in Schedule of Classes. Prerequisite: 97:010 or 97:025 or 97:031.

## 97:170(g). Political Geography- 3 hrs.

Prerequisite: either 97:010 or 97:025 or 97:031 or consent of instructor. Junior standing recommended.
97:182(g). Ecogeography- 3 hrs .
Framework for understanding of the earth as the home of man. Prerequisite: 97:010 or 97:025 or 97:031.
97:185(g). Population Geography-3 hrs.
Regional variations in population characteristics. Prerequisite: either 97:010 or 97:025 or 97:031 or consent of instructor.

97:189(g). Reading in Geography-1-3 hrs. Prerequisite: approval of the head of the department. A total of 3 hours can be applied on the geography major.

## 97:193(g). The Nature and Scope of Geography -3 hrs .

Analysis of the various currents of thought concerning the nature, scope, and methodology of geography. Strongly recommended for those declaring an emphasis or major in geography. Prerequisite: either 97:010 or 97:025 or 97:031 or consent of instructor.
97:203. Field Methods- 3 hrs.
A survey of geographical field procedures and problems, including measurement techniques, observations, and mapping based on field trips. Prerequisite: Departmental approval. Lab., 2 threehour sessions.

97:210. Theoretical Geography-3 hrs.
The philosophy and major theories of modern geographical science. Emphasis on quantitativa analysis, model building, and location theory Prerequisite: 97:193 and consent of instructor.

## 97:280. Seminar- 3 hrs.

Offered in specially designated areas as indicated in Schedule of Classes. If 6 hours of seminar are taken in the M.A. program, 3 hours must be in systematic geography.
97:285. Readings in Geography-1-3 hrs.
Prerequisite: Approval of the head of the department.
97:288. Research and Bibliography-2 hrs.
Introduction to methods of geographical analysis.
Scholarly use of source materials and effective presentation of research findings.
97:299. Research.

## History

Whitnah, Head. E. Brown, Cheng, Eiklor, Howard, H. Jones, Kamerick, Lang, Newell, Poage, Quirk, Riley, Ryan, *Sandstrom, Shepardson, Sunseri, R. Talbott, H. Thompson, Walker, Wohl.
*on leave
Note: Students other than majors or minors in history or majors in economics, geography, political science, sociology-anthropology, or social science must take fifteen (15) semester hours each in United States history and European (world) history for approval to teach in these fields.
Note: Neither 96:070 nor 96:123 may be counted toward history majors or minors.

## HISTORY MAJOR-TEACHING

Required: 68:021; 68:022 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8 hours

Required: 96:014, 96:015; 96:193 . ..................................................... . . . 8 hours
Electives in history: a minimum of 22 hours (to include at least 9
hours of European history and 3 hours of non-Western history). ................ 22 hours
41 hours
Students satisfactorily completing this major will be approved to teach in United States history or in world history; or in both, if at least 12 hours are taken in each.

The history major may consider a minor in at least one other social science discipline.
Courses used to meet the General Education requirements or requirements of other majors or minors may not be used to meet requirements of this major.

Reading proficiency in a foreign language is strongly recommended, particularly for students planning to do graduate work.

## HISTORY MAJOR

Required: 68:021; 68:022 ..... 8 hours
Required: 96:014; 96:015; 96:154; 96:155; 96:193 ..... 14 hours
Electives in history ..... 18 hours
Electives from at least two related fields approved by the
Department of History ..... 9 hours49 hours

Courses used ot meet General Education or other degree requirements may not be used to meet requirements of this major.

Reading proficiency in a foreign language is strongly recommended, particularly for those planning to do graduate work.

## HISTORY MINOR-Teaching

Required: 96:014; 96:015; 96:154; 96:155 ..... 12 hours
Required: 90:190 (unless already taken on major) ..... 3 hours
Electives in history ..... 9 hours

Students whose emphasis is American history must include one course in Latin American history. Students whose emphasis is world history must include one course in one of the following: Middle Ages, Ancient, Near East, or non-Western history.

Students satisfactorily completing this minor will be certified to teach in American history or in world history, or in both, if at least 12 hours are taken in each.

## HISTORY MINOR

Electives in history excluding courses used to meet general education requirements ..... 18 hours
96:015 and 96:155 are strongly recommended.

## 96:014. United States History to 1877-3 hrs.

Events, factors, and personalities which shaped social, economic, and political development of the United States from settlement to the end of Reconstruction.
96:015. United States History since 1877-3 hrs.
End of Reconstruction period to the present, including economic, diplomatic, intellectual, political, and social factors.
96:070. Latin American Civilization-3 hrs. Historical, political. social, and cultural elements that form the civilization of Latin America. No credit if student has credit in $78: 140$. May not be taken for credit on history majors or minors.
9:101(g). History of Ancient Greece- $\mathbf{3} \mathbf{h r s}$.
Archeology of the Aegean and the MinoanMycenaean civilization; the Homeric period, the classical civilization of Greece to Alexander the Great and the Hellenistic Age; the advent of the Romans.
9:103(g). History of Ancient Rome- $\mathbf{3}$ hrs.
The Roman Republic, expansion of Roman rule, the Roman Empire, the decline and fall of the empire in the 5 th century A.D. Compares the Romans as people with modern Americans.

## 9:107(g). War and Society in the Modern World -3 hrs .

An historical study of the causes and conduct of war and the impact of war on society since the 17th century with emphasis on the 19th and 20th centuries.
96:116(g). Recent United States History- $\mathbf{3}$ hrs.
A history of the American people since 1929 with emphasis on domestic affairs.
96:122(g). The Black in United States History- $\mathbf{3}$ hrs. History of black Americans from the African background into the $1970^{\circ} \mathrm{s}$, with an emphasis on the period since the end of slavery.
96:123. Problems in American Civilization-2 hrs.
Problems facing the United States in its world relationships. May not be taken for credit on history majors or minors.
96:124(g). The City in United States History- 3 hrs.
Introduction to urban history; functions. shapes, and dynamics of the city in the American experience from the 17th century to the present; emphasis on the metropolis of the past half-century.
96:130(g). History of lowa-2 hrs.
Social, political, and economic developments in lowa from prehistoric times to the present.

## 9:132(g). Internship in Historical Studies- $\mathbf{3 - 8} \mathbf{~ h r s . ~}$

 Individualized study and experisnce in applied techniques, particularly state and local resources; includes readings, in-museum service, and a stu-dent-designed project. Recommended preceded by course in Iowa history.96:134(g). United States Economic History-3 hrs.
Efforts of the people to raise the standard of living, their means of livelihood, and the development of the national economy. Explores theories of economic growth. Credit may be counted as economics.
96:136(g). American Colonial History- $\mathbf{3}$ hrs.
Seventeenth and 18th Century America; development of colonial societies in the New World and the American Revolutionary era.
96:137(g). Early National Period in U.S. History -3 hrs.
Political, economic, and social development of the United States in the years between the American Revolution and the end of the Jacksonian Era.
96:138(g). United States Foreign Relations- $\mathbf{3}$ hrs. Assessment of achievements and failures of United States diplomacy since 1776 and relationship of these to present and recent past.
96:139(g). Civil War and Reconstruction- $\mathbf{3}$ hrs.
Causes of the Civil War, the nature of the conflict, and the short-range and long-range consequences of the war.
$96: 140(\mathrm{~g})$. History of the West- $\mathbf{3}$ hrs.
Westward movement of the people, from the Atlantic to the Pacific: the impact of over two centuries of frontier experience on the course of the nation's history and in the shaping of the "American" character.
9:142(g). United States Constitutional History -3 hrs .
Relates individual rights, political-socio-economic issues, and the rivalry among the Presidency-Congress-Supreme Court to the development of the U.S. Constitution.

96:143(g). Dissent in United States History- $\mathbf{3}$ hrs.
A systematic study of the dissent in general, and of specific protest movements, with emphasis on post-Civil War period, including both radical and reactionary movements-Women's rights and Women's Liberation, Old Left and New Left, Ku Klux Klan, Radical Right, Socialism and Communism.
96:144(g). History of American Thought-3 hrs.
Historical examination of principal idea-systems which shaped the intellectual profile of American civilization.
9:146(g). History of Women in the United States -3 hrs.
Survey of the social, cultural, and economic roles of women in the United States from founding to the present, with some comparative analysis of women's roles in other areas of the world.

9:151(g). The Ancient Near East- $\mathbf{3}$ hrs.
The artistic, literary, political, religious, and social accomplishments of Near Eastern people of ancient times.

96:152(g). Medieval Civilization- $\mathbf{3}$ hrs.
Social, economic, political, and cultural features seen as foundations of the modern period. From the Fall of Rome to the 15th century.
96:153(g). The Renaissance and Reformation- $\mathbf{3} \mathbf{h r s}$.
The intellectual, artistic, economic, and political developments of the Italian and Northern Renaissance, culminating in an examination of the 16th century Reformation.

## 96:154. Modern Europe to 1815-3 hrs.

Europe beginning with the Renaissance; development of the Reformation and the modern state (cultural, economic, and social problems of all Europe during the 16th-18th centuries).

## 96:155. Modern Europe since 1815-3 hrs.

European history from the Congress of Vienna to the present; includes movements of national unification in Italy and Germany, and cultural movements during the "Generation of Materialism." Origins of World War I and its impact on Europe, the legacy of World War I-the Fascist and Communist revolutions; World War II, and the era of the Cold War.
96:157(g). European Diplomacy since $1870-3$ hrs.
Modern European and global diplomacy with emphasis on the ideological factors underlying relations among the various states and the methods of the men who pursued these.

## 96:158(g). Age of Absolutism- $\mathbf{3}$ hrs.

History of the emerging nations of Europe with emphasis upon the age of absolutism and Louis XIV.
96:160(g). Twentieth Century Europe- $\mathbf{3}$ hrs.
Seeks the reasons for an age of conflict; political philosophies and personalities of the period.

## 96:162(g). European Thought Since the Enlightenment- $\mathbf{3}$ hrs.

Selected ideas and men in the 19th and 20th centuries. Prerequisite: junior standing.
96:164(g). English History to 1688-3 hrs.
England and the British Isles: Celtic and Roman times, England in the Middle Ages, the TudorStuart dynasties, the Glorious Revolution of 1688; England's beginnings as a great power and her relations with the rest of Europe.

96:165(g). English History since 1688-3 hrs.
English political, economic, social, and intellectual history with emphasis on the Victorians and the 20th century; the British Empire and Commonwealth.
96:168(g). European Imperialism- $\mathbf{3}$ hrs.
Motivations, institutions, and policies of European expansion in Asia, Africa, and Latin America.

Political, social, economic, and cultural aspects of Russia with emphasis on the 19th century.
95:170(g). History of Soviet Russia- $\mathbf{3} \mathbf{~ h r s . ~}$
Political, social, economic, and cultural developments of Russia in the 20th century, emphasis on ideology.
96:171(g). History of Germany to 1870-3 hrs. Social, political, and intellectual history of Germany, with emphasis on 16th, 17th, and 18th centuries; 19th century to 1871.
9:172(g). History of Germany since 1871-3 hrs. Political, social, economic, and cultural developments of Germany within the 19th and 20th centuries; emphasis on the Nazi period.
$\mathbf{9 6 : 1 7 4 ( g ) . ~ H i s t o r y ~ o f ~ F r a n c e - ~} \mathbf{3} \mathbf{h r s}$.
Surveys the cultural, economic and political history of France with emphasis on the period 1760 to the present.
\$5:177(g). History of Mexico and the Caribbean Area- $\mathbf{3}$ hrs.
Mexico and the major Caribbean countries, the United States in the Caribbean, with emphasis on the 20th Century.
96:179(g). Colonial Latin American History- $\mathbf{3}$ hrs. Discovery, exploration, conquest and development of Colonial Latin America.
9:180(g). Latin American History- $\mathbf{3} \mathbf{~ h r s . ~}$
Modern development of the Latin American States and their relations to the United States.
96:181(g). Pre-Modern South Asia- $\mathbf{3}$ hrs.
The culture and institutions within the Indian subcontinent from antiquity through the Hindu and Islamic periods.
\%:182(g). Modern South Asia-3 hrs.
The influence of the West upon the cultures and institutions within the Indian sub-continent; response to changing conditions in the Anglo-Indian Empire; rise of movements leading to the establishment of India and Pakistan.
9:183(g). Pre-Modern Chinese History-3 hrs.
Cultural and institutional developments in China from earliest times to ca. 1800 A.D.
95:184(g). East Asia to 1850-3 hrs.
Religion, philosophy, literature and the arts of East Asia.
\%:185(g). East Asia since 1850-3 hrs.
History of China, Japan, and Korea in modern times.

96:187(g). Modern Chinese History-3 hrs.
Political, social, economic, and intellectual developments in China with special emphasis on the period from the Revolution of 1911 to the present.
96:188(g). South Asian Intellectual History- $\mathbf{3}$ hrs. Intellectual developments in the Indian subcontinent.

96:189. Readings in History- $\mathbf{3}$ hrs.
Student will choose one of the following areas at registration: (1) Ancient; (2) Medieval; (3) English; (4) French; (5) German; (6) Russian; (7) United States; (8) Latin American; or (9) Asian (India, China, Japan). Prerequisite: approval of head of department; for the field of U.S. history, 9 semester hours in U.S. history; for each of the other fields, 9 hours in history other than U.S., which must include 3 hours related to the particular field to be studied.

## 96:192. Junior-Senior Seminar- 3 hrs.

Seminar in history offered as indicated in Schedule of Classes. For history majors only. May be repeated for credit in different fields. Prerequisite: junior standing; must have 9 semester hours in history including 3 hours in field of the seminar.

## 96:193(g). Historians and Philosophy of History -2 hrs .

A study of the methodology and philosophy of history, illustrated by the history of historical writing. Prerequisite: junior standing.
9:198. Independent Study.
96:238. United States Diplomacy-3 hrs.
Combines the lecture and readings-seminar approach in studying concepts and policies involved in the nation's diplomacy since the late nineteenth century.
96:280. Seminar in History-3 hrs.
Offered in specially designed areas as indicated in Schedule of Classes.
96:285. Individual Readings- $1-3 \mathrm{hrs}$.
May be repeated. Prerequisite: approval of department head.
96:290. Historical Methods- $\mathbf{2}$ hrs.
Investigation into the problems confronting the historian and an analysis of the methods and techniques employed by the historian.
96:292. Historical Analysis- $\mathbf{2}$ hrs.
Logical, methodological, philosophic, and theoretic problems of historical inquiry, emphasis on developing criteria for the critical evaluation of historical scholarship.
96:299. Research.

## Home Economics

M. Story, Head. Conklin, Eska, *Franken, Keir, P. Martin, McKinsey, Megivern, J. Morgan,Oslund, Pershing, Spaide, J. Thompson, Wiksell, M. Wilkinson.
*on leave
VOCATIONAL HOME ECONOMICS MAJOR-TEACHING
Required: 31:010; 31:015; 31:035; 31:037; 31:038; 31:060; 31:062; 31:065; 31:070; 31:110; 31:150; 31:181; 31:182; 31:190 38 hours
Required: 31:051 or 31:152 ..... 2 hours
Required: 31:172 or $31: 178$ (sec. 3) ..... 2-3 hours
Required: 86:061; 86:063; 84:033 ..... 11 hours
Electives: in one home economics area ( 4 in foods; 5 in clothing; 6 in all others) ..... 4-6 hours
No minor is required.
HOME ECONOMICS MAJOR-TEACHING
Required: 31:010; 31:015; 31:035; 31:037; 31:038; 31:060; 31:062; 31:065; 31:070; 31:110; 31:150; 31:190 34 hours
Required: 31:051 or $31: 152$ ..... 2 hours
Required: science in addition to general education (may include 37:050) ..... 6 hours
42 hours
A minor (minimum of 15 hours) is required.
HOME ECONOMICS MAJOR
Required: 31:010; 31:035; 31:060; 31:065; 31:070; 31:051 or 31:152 16 hours
Electives: home economics from areas of textiles and clothing, foods and nutrition, family relationships and child development, housing, family economics and home management 16 hours
32 hours
HOME ECONOMICS IN BUSINESS-Clothing And Textiles
Required: 31:010; 31:0!5; 31:060; 31:065; 31:070; 31:110; $31: 111 ; 31: 112 ; 31: 114 ; 31: 051$ or $31: 152 ; 31: 115 ; 31: 195$ 32-38 hours
Required: 13:040; 13:154; 13:158; 13:141 ..... 12 hours
44-50 hours
Recommended 92:024 and 98:058
HOME ECONOMICS IN BUSINESS-Food and Nutrition
Required: 31:035; 31:037; 31:038; 31:060; 31:062; 31:070; 31:142; 31:144; 31:145; 31:051 or 31:152; 31:137 or 31:130; 31:177; 31:195 ..... 36-42 hours
Required: 86:061; 86:063; 84:033 ..... 11 hours
Required: 13:040; 13:154; 13:158; and one 3-hour business-related course approved by adviser ..... 12 hours
HOME ECONOMICS IN BUSINESS-Housing and Interior Design
Required: 31:010; 31:051; 31:060; 31:062; 31:065; 31:070; 31:110; 31:152; $31: 162 ; 31: 163 ; 31: 164 ; 31: 165 ; 31: 166 ; 31: 167 ; 31: 195$ 40-46 hours
Required: 13:040; 13:154; 13:158; 13:141 ..... 12 hours
Required: 33:115 ..... 3 hours
HOME ECONOMICS MINOR
Required: 31:051 or 31:152; 31:070 or 31:177 ..... 4-5 hours
Electives from: 31:010; 31:015; 31:030; 31:035; 31:037;
31:038; 31:051; 31:055; 31:060; 31:062; 31:065; 31:070;
31:110; 31:114; 31:135; 31:150; 31:152; 31:163; 31:177 ..... 13-14 hours
This minor does not qualify one for teaching home economics. ..... 18 hours
FAMILY LIFE EDUCATION MINOR
*Required: 29:102; 31:051; 31:055; 31:152; 31:070 14 hours
Required: 98:105; 45:181 ..... 5 hours
19 hours*Other courses in guidance, home economics, psychology, and/or sociology and approved bythe adviser must be substituted to make a total of at least 15 hours if courses listed are alreadycounted on the student's major.
HOME ECONOMICS SUBJECT FIELD—Middle School/Junior High Education Major*
Required: 31:010; 31:015; 31:035; 31:037; 31:051; 31:060; 31:065; 31:070; 31:152 25 hours
(*see Department of Curriculum and Instruction, page 111)
31:005. Introduction to Home Economics-1 hr.
History, philosophy, and trends in home economicscareers.

31:120(g). Demonstration Techniques-2 hrs. Techniques of demonstration and their application in learning and teaching. Demonstrations planned and presented to audiences of varied size, background, and interest.

## TEXTILES AND CLOTHING

31:010. Clothing Selection- 2 hrs.
Problems in clothing decisions. Prerequisite: 31:060.
31:015. Clothing Construction-2 hrs.
Clothing, construction using commercial patterns.
31:110(g). Textiles- $\mathbf{3}$ hrs.
Effect on fiber content, construction, and finish on the serviceability and cost of fabrics. Identification tests. Recommended 86:063 be taken prior to 31:110.
31:111(g). Costume Design- $\mathbf{3}$ hrs.
Flat pattern making. Prerequisite: 31:010 and 31:015.
31:112(g). Tailoring- $\mathbf{3} \mathbf{h r s}$.
Tailoring of suits and coats. Prerequisite: 31:010 and $31: 015 ; 31: 111$ recommended.

31:113(g). Decorative Textiles- $\mathbf{3}$ hrs.
Textile printing, weaving, dyeing and other decorative processes. Prerequisite: 31:060.
31:114(g). Socio-Psychological Aspects of Textiles and Clothing- $\mathbf{3}$ hrs.
Origins and functions of clothing and textiles for the individual and society. Hypotheses concerning clothing among cultures and implications for clothing consumption patterns for individuals and families from personal value systems.
31:115(g). Patterns in Clothing Consumption- $\mathbf{3}$ hrs.
Current theories of clothing consumption factors affecting family clothing expenditures; production and distribution of textile and clothing products for the consumer market. Principles of merchandising as applied to clothing and household textiles.
31:118(g). Problems-1-4 hrs.
(1) Textiles, (2) Clothing

## FOODS AND NUTRITION

31:030. Basic Nutrition-2 hrs.
For non-majors. Credit not given for both 31:030 and 31:037. Food nutrients essential for good health; emphasis on selection and use of food for health and satisfaction of the individual and the family.
31:035. Foods- $\mathbf{3}$ hrs.
Basic principles of food selection, preparation, and service. For majors and minors; also open as an elective.
31:037. Principles of Nutrition-2 hrs.
Relation of foods and nutrition to growth, development, and maintenance of health. A study of development of good nutritional habits for children and adults. 86:063 or equivalent and 31:035 should precede this course.
31:038. Meal Management-3 hrs.
Problems involved in the planning, selection, preparation, and serving of meals. Emphasis on management of time, energy, and money. Prerequisite: 31:035. Prerequisite or corequisite: 31:037. No credit if have taken $31: 036$.
31:130(g). Nutrition During the Life Cycle- $\mathbf{3}$ hrs.
Human nutritional needs; nutrient requirements of women during the reproductive period; problems in feeding infants and children; indices of growth and development, and geriatric nutritional problems. Prerequisite: 11:037.
31:135. Food for the Family - 4 hrs.
No credit for students with credit in 31:035, 31:036, or $31: 142$. For students who do not plan a major in home economics.
31:137(g). Advanced Nutrition- $\mathbf{3}$ hrs.
Nutritive value of food-its relation to chemistry and the physiological aspects of digestion and metabolism. Dietary planning and analysis for normal and abnormal nutrition. Discussion, 2 hrs., lab., 2 hrs. Prerequisites: 31:035, 31:037, 31:038, 86:061, 86:063; recommended, 2 hours of 86:150.
31:142(g). Experimental Foods- $\mathbf{3}$ hrs.
Functions of ingredients, factors affecting quality of food products, experimental projects under controlled conditions, and technical writing. Prerequisite: 86:063.
31:143(g). Special Food Problems- $\mathbf{3}$ hrs.
Influence of food on cultural and social relationships of family, community, and world. Racial and national food patterns.
31:144(g). Comparative Study of Foods- 3 hrs.
Food preservation, factors affecting palatability and nutritive value of food, taste panels and preference surveys as related to the food industry. Prerequisite or corequisite: 84:033; prerequisite: 31:038.
31:145(g). Quantity Food Production and Purchasing- 4 hrs.
Study of various aspects of and laboratory experience in quantity food production and purchasing. Prerequisite: 31:037, 31:038.
31:148(g). Problems- $1-4$ hrs.
(1) Foods; (2) Nutrition.

## FAMILY RELATIONSHIPS AND CHILD DEVELOPMENT

## 31:051. Personal Relationships-2 hrs.

Facilitating personal growth and satisfying interper sonal relationships, using group process to increase awareness and acceptance of self and others.
31:055. Human Growth and Development-4 hrs.
Psychological, emotional, social, and physiologicfactors affecting the human developmental pattern from conception through old age. Prerequisite 40:008.
31:057. Human Relationships and Sexuality- 3 hrs.
Male and female identity; establishment of meaning: ful interpersonal relationships, and definition and role of human sexuality in human relationships.

## 31:150(g). Child and the Home- 4 hrs.

The infant through pre-school age; experience with children through a playschool situation. Prerequisite: 20:014 or 20:030 or 31:055.

## 31:152(g). Family Relationships- $\mathbf{2}$ hrs.

Understanding self as an individual and family member; using group process to explore relationships and communications within family groups throughout the life cycle.
31:155(g). Parenting- $\mathbf{3}$ hrs.
Roles and relationships involved in parenting; prap tical aspects of child rearing based on developme tal stages, emphasizing the development of self wis love, trust, identity, autonomy, and responsibility.

## 31:158(g). Problems- $1-4$ hrs.

Sec. 1. Personal and Family Relationships.
Sec. 2 Human Development.
Sec. 3. Human Sexuality.

## 31:250. Family Life and Sex Education Programs

 -3 hrs .Exploration of methods, content, and recommendations for teaching family life at K-12 levels. Survey of current literature, films, and research findings. Special problems in developing teaching plans and materials. Prerequisite: $31: 152$. Highly recommended to precede: 31:051, 31:055, 98:105.

## HOUSING, HOME FURNISHINGS AND EQUIPMENT

31:060. Related Design- $\mathbf{3}$ hrs.
Study of and creative experiences with design and its application to everyday living.
31:062. Household Equipment-3 hrs.
Selection, use, and care of home appliances. Application of basic physical science principles.
31:065. Housing and Home Furnishings- 3 hrs.
Psychological, social, and physical factors affecting housing for families; beginning study of interior design. Prerequisite: 11:060.
31:162(g). Non-Residential Interior Design- $\mathbf{3}$ hrs.
Designing solutions for various non-residentir problems; specification writing; new trends in commercial design. Prerequisite or corequisite: 31:165.
si:163(g). Contemporary Housing Problems- $\mathbf{3}$ hrs. Analysis of current U.S.A. housing needs, urban and rural housing problems, roles of private citizens, business and government, and remedial measures. Exploration of housing solutions and trends in other countries. Field trips and individual studies. Prerequisite: 31:065 (may be waived for non-majors).
31:164(g). Professional Practice of Interior Design -2 hrs.
Survey of field opportunities; future professional role, business ethics and responsibilities of the designer, client-designer and trade relationships. Prerequisite: 31:165.
31:165(g). Interior Design- $\mathbf{3}$ hrs.
Individual and group analysis of interior design problems to find various creative solutions to spatial treatment and meeting needs of people; further study of effects of lighting, window treatments. furniture, and accessories; experiences in abstract design and display. Prerequisite or corequisite: 31:166.
31:166(g). Presentation Techniques- $\mathbf{2}$ hrs.
Methods of perspective drawing and rendering of interiors in various media. Prerequisite: 31:065. May be taken with 31:165.
31:167(g). Heritage of Interior Design-4 hrs.
Study of period styles of housing and furnishings, ancient through modern, and their use in contemporary homes; current trends and designers. Prerequisite: 31:060; prerequisite or corequisite: 31:065 (may be waived for non-majors).
31:168(g). Problems- $1-4$ hrs.
Sec. I. Housing
Sec. 2. Interior design.
Sec. 3. Household Equipment.

## FAMILY ECONOMICS AND HOME MANAGEMENT

## 31:070. Home Management and Family Finance

 -3 hrs .Significance of the management process in achieving family goals. Consideration of management problems unique to the various stages in the family life cycle. No credit if have taken 31:170 or 31:176. Prerequisite: at least sophomore standing.
31:172. Home Management House- $\mathbf{3}$ hrs.
Experience in applying the principles of management to family resources. Residence in the house integrates the understandings, knowlege, and skills gained from the various phases of home economics. To be taken during professional semester opposite student teaching. Prerequisites: 31:038; 31:070.
31:176(g). Family Economics-2 hrs.
31:177(g). The American Consumer-2 hrs.
Analytical approach to the consumption of goods and services. Understanding the consumer movement: developing competencies for consumer decisions and actions.

## 31:178(g). Problems- $1-4$ hrs.

Experience in applying the principles of management to family resources. (1) Family economics; (2) consumer) (3) home management; (4) home management laboratory experience. Section 4 open only to married students currently responsible for the management of their own homes- 2 hrs . credit; supervised experience in applying the principles of management to family resources to attain family goals. Prerequisites: 31:038; 31:070; and consent of the department head. No credit if have had 31:172.

## HOME ECONOMICS EDUCATION

## 31:181(g). Organization and Administration of Vocational Home Economics Programs -2 hrs.

History, philosophy, and current status of vocational home economics. Includes program development and coordination of home economicsrelated occupations and career education in home economics.
31:182(g). Adult Education-2 hrs.
Survey of scope and need for adult education. Materials and techniques suited to group work with adults. Observation and participation in organizing and teaching an adult class. 31:190 should precede this course.
31:188(g). Problems-1-4 hrs.
(a) Home Economics Education; (2) Curriculum Planning.
31:190. Methods in Home Economics- $\mathbf{3}$ hrs.
Roles of the home economics teacher. Planning and evaluating the teaching of home economics including micro-teaching experience.
31:195. Pre-Professional Experience-2-8 hrs.
Supervised experience in approved work situation. Transfer students must complete one full semester in residence before being approved for preprofessional experience.
Sec. 1. Clothing and textiles.
Sec. 2 Foods and nutrition.
Sec. 3. Housing and interior design, prerequisite: 31:166.

## 31:198. Independent Study.

## 31:280. Methods and Curriculum in Home

 Economics- $\mathbf{3}$ hrs.Clarification and use of a rationale in curriculum development in home economics. Special problems in application.
31:281. Research in Home Economics- $\mathbf{3}$ hrs.
Evaluation of current research in home economics and development of research proposals.
31:282. Supervision in Home Economics- $\mathbf{2}$ hrs.
Objective, techniques, and organization of supervised teaching in teacher-training and in city and area schools.
31:283. Techniques of Evaluation-2 hrs.
Construction and use of different types of instruments for evaluating educational outcomes.

Guided study of the available measuring instruments in home economics.

## 31:284. Current Issues and Trends in Home Economics- $\mathbf{3}$ hrs.

Examination of current issues faced by home economists and current trends in subject matter, methods, and facilities.

31:297. Problems in Home Economics Education $-1-4$ hrs.
Graduate seminars in various areas according to student's needs.

31:299. Research.

## Political Science

R. L. Ross, Head. L. Alberts, Bonham, Krogmann, Metcalfe, N. Talbott, Vajpeyi, White, Winter.

## POLITICAL SCIENCE MAJOR-Teaching

Required: 94:011; 94:014; 92:053; 98:058; 90:190 ................................... . 15 hours
Required: either 94:124 or 94:135 and either 94:131 or 94:134 ..................... 5-7 hours
Required: 94:160 or 94:161 or 94:167 ................................................... 3 hours
Electives in political science $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$. $\ldots \ldots \ldots$ hours

A minor is required in one of the following: history, sociology, economics, or geography.

## POLITICAL SCIENCE MAJOR

Required: 94:011; 94:014; 98:058; 92:053 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 hours
Required: 94:124 or 94:135 and 94:131 or 94:134 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5 5 7 hours
Required: $94: 160$ or $94: 161$ or $94: 167$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Electives in political science . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18-20 hours
40 hours
No minor required.

POLITICAL SCIENCE MINOR-Teaching and Liberal Arts
Required: 94:011; 94:014 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6 hours
Required: 94:124 or $94: 135$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3-4 hours
Required: 94:160 or 94:161 or 94:167 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Electives in political science . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5-6 hours

94:010. Survey of American Politics- $\mathbf{2}$ hrs. Survey of American government and the Constitution to meet teacher certification requirements. political Science majors may not take this course for credit. Student may not receive credit for this course and also for 94:014.
94:011. Introduction to Political Science- $\mathbf{3}$ hrs. Not limited to American government.

## 94:014. Introduction to American Politics- $\mathbf{3}$ hrs.

The processes and functions of American government in relation to concepts of American democracy and to practices of other governments. Sophomore standing recommended.
94:020. Contemporary Political Problems- $\mathbf{2}$ hrs. Current political problems/issues; a general education course. May not be taken for general education or political science credit by political science majors or minors.
94:024. Politics: Conflict and Cooperation- $\mathbf{3}$ hrs. No credit for student with credit in 90:024.
94:026. World Politics- $\mathbf{3}$ hrs.
Conflict and cooperation in world politics. Current international problem areas and area problems. The Atlantic Community; Soviet Union; Eastern Union; Far East; Southeastern Asia; Africa; Latin America. Not open to students who have had 94:124.
94:112(g). Political Parties- $\mathbf{3}$ hrs.
Origin, organization, and operation of political parties in the United States.
94:124(g). International Relations-4 hrs.
94:127(g). United States Foreign Policy- $\mathbf{3}$ hrs.
Factors influencing the formation and execution of United States foreign policies and specific instruments of foreign policy

## 94:128(g). Foreign Policies of Communist <br> Countries- $\mathbf{3}$ hrs.

The formulation and implementation of communist foreign policy.
94:131(g). American State Politics- $\mathbf{3} \mathbf{~ h r s . ~}$
An analysis of the organization, functions and operation of state and local governments.
94:132(g). Community Political Systems- $\mathbf{3}$ hrs.
Structure and functions of city government. Relation of the city to the state.
94:134(g). Congressional and Administrative Policy Making- 3 hrs.
Congressional-Administrative-Presidential politics in the formulation and execution of public policy.
94:135(g). Modern European Governments- $\mathbf{3}$ hrs.
The dynamics of political decision making in England. France, Germany, and the Soviet Union with emphasis on contrasts between democratic and totalitarian regimes.
94:141(g). Constitutional Law- $\mathbf{3}$ hrs.
The Constitution of the United States as fundamental law.

94:143(g). International Law- 3 hrs.
Legalistic rules studies in the context of a case-bycase analysis and synthesis.
94:144(g). International Organizations- $\mathbf{3} \mathbf{~ h r s . ~}$
The forms and functions of the international organizations, with special reference to the United Nations system and its activities.
94:146(g). Law and the Courts I- $\mathbf{2}$ hrs.
Study of the courts in America today with particular emphasis on trial courts and their impact on the community.

## 94:147(g). Law and the Courts II-2 hrs.

Study of judicial law making, private influences on court-expanded rights, and law school methods.
94:148(g). Public Administration- $\mathbf{3}$ hrs.
The place of public servants in he functioning of government and recent trends in the expansion of administration.
94:149(g). Comparative Administration- $\mathbf{3}$ hrs.
Analysis of models and theories of comparative administration by adopting "idiographic" approach and explanation of differences in administrative behavior of different administrative systems.
94:150(g). Political Opinion and Public Policy- $\mathbf{3}$ hrs.
The formation and development of political opinion by interest groups and mass media in the shaping of public policy.
94:151(g). Literature on the Modern Presidency -3 hrs .
Analysis of the character of the office, the men who have occupied it, and the role of the institution in American politics.
94:152(g). Government and Business- $\mathbf{3}$ hrs.
The dynamics and legalities of regulatory administration.
94:154(g). Legislative Process- $\mathbf{3}$ hrs.
An analysis of the functions, powers, organization. processes, and problems of legislative systems in a comparative framework.
94:160(g). Western Political Thought-3 hrs.
The development of political thought from Plato to the present, with primary emphasis on the relationship between man and the state.
94:161(g). Political Thought-Marx to Easton-3 hrs. 94:162(g). Latin American Governments- $\mathbf{3}$ hrs.
The evolution of political institutions in Central and South America. Through an examination of personality, political parties and issues, insight into the nature of contemporary society in the western hemisphere is given.
94:164(g). Government of the Soviet Union- $\mathbf{3}$ hrs.
The Soviet political system with emphasis upon the institutions and groups involved in the determination and implementation of public policy.
94:165(g). East Asian Politics- $\mathbf{3}$ hrs.
The political structures and institutions of China. Japan, and Korea, with emphasis on the modernization process since the middle of the 19th century.

## 94:167(g). Political Thought of South and East Asia- $\mathbf{3}$ hrs.

Comparative study of the political thought of leading thinkers of India, China, and Japan from earliest times to the present.

94:168(g). Politics of South Asia- $\mathbf{3}$ hrs.
Parliamentary institutions and politics; political movements and independence; the parties; the politics of language, caste, and tribe; democracy and economic change; goals and styles of political leadership; religion and politics; problems of nation building; and current trends in the countries of this area.

94:170(g). Politics of Modernization in Developing Areas- $\mathbf{3}$ hrs.
Theories of political development and modernization in relation to political systems of developing countries of Africa, Asia, and Latin America.

94:175(g). Comparative Revolutions and Political Change- $\mathbf{3}$ hrs.
A comparative study of revolutionary change in Europe and in the developing areas of Asia, Africa, and Latin America in historical and analytical contexts.

94:180. Orientation to Fieldwork in Politics- $\mathbf{- 2}$ hrs.
Discussion with government officials, analysis of relations between the press and government, and experience using reference materials in law. administration, politics, and economics. Prerequisites: departmental approval; 15 hours of political science including 94:014 and 94:131.

94:181. Internship in Politics-4-8 hrs.
Student serves as intern with government official or in public or private agency. Required: junior standing, political science major. Prerequisitem departmental approval; 94:180.
94:182. Post-Intern Seminar- $\mathbf{3} \mathbf{h r s}$.
Debriefing for interns in politics emphasizing comparison of scholarly writings on politics with the intern's practical political or administrative experience. Departmental approval required. Prerequisite: 94:181.
94:189(g). Readings in Political Science- $\mathbf{1 - 3} \mathbf{h r s}$.
Prerequisite: 12 hours in Political Science and departmental permission. May be repeated only with permission of the department.
94:198. Independent Study.
94:211. Major Political Philosophers- $\mathbf{2}$ hrs.
Origin and development of the State as reflected in the writings of political philosophers.
$94: 213$. Politics and Democracy- $\mathbf{3} \mathbf{h r s}$.
A seminar focusing on political thought and behavior.
94:224. International Politics- $\mathbf{3} \mathbf{h r s}$.
Prerequisite: $94: 124$ or consent of instructor.
94:275. Political Science Methodology-3 hrs.
Basic methods for gathering and presenting knowledge of the discipline. Application to teaching will be stressed.
94:280. Seminar in Political Science- $\mathbf{3}$ hrs.
$94: 285$. Individual Readings-1-3 hrs.
May be repeated.
94:292. Research and Bibliography- $\mathbf{3}$ hrs.
94:299. Research


## Psychology

Gilgen, Head. Gilpin, G. Harrington, Hellwig, J. Jones, Somervill, Walsh, Whitsett, Yates.

PSYCHOLOGY MAJOR-Teaching
Required: 40:030; 40:049; 90:190 ..... 12 hours
Required: 40:188 and/or 40:189 ..... 3 hours
Required: 40:193 and/or 40:180 ..... 3 hours
Electives in psychology (excluding 40:188, 40:189, 40:193, 40:180) ..... 15 hours
33 hours
Note: Students are advised to qualify for approval to teach in an additional subject area. PSYCHOLOGY MAJOR
Required: 40:030; 40:049 9 hours
Required: 40:188 and/or 40:189 ..... 3 hours
Required: 40:193 and/or 40:180 3 hours
Electives in psychology (excluding 40:188, 40:189, 40:193, and 40:180) 15 hours
30 hours
PSYCHOLOGY MINOR-Teaching
Required: 40:030; 40:049 ..... 9 hours
Electives in psychology ..... 11 hours
20 hours
PSYCHOLOGY MINOR
Required: 40:030; 40:049 ..... 9 hours
Electives in psychology ..... 9 hours
18 hours

## 40:008. Introduction to Psychology- $\mathbf{3}$ hrs.

To provide a foundation for psychological understanding.

## 40:009. Elements of Psychology-1 hr.

A series of independent, half-semester sections in the fundamental areas of psychological knowledge. Any three sections are equivalent to $40: 008$. Credit may be earned up to a maximum of 5 hours, but not in the same section. Sections for any semester to be listed in the Schedule of Classes.

## 40:030. Psychological Processes- 5 hrs .

Examination of basic perceptual and response processes common to behavior; the modes of contact with the environment and internal representations thereof; and the organism's attempts to cope and, in higher organisms, to master environment. Prerequisite: 3 hours of psychology.

## 40:049. Psychological Statistics- $\mathbf{4}$ hrs.

An introduction to the basic methods of collecting, organizing, and analyzing psychological data. Emphasis is placed on statistical inference, e. g., t tests, F tests, and selected non-parametrics. The course is designed to provide the student with the
basic statistical concepts and skills necessary for laboratory and survey work and to provide adequate quantitative background for understanding psychological literature. Prerequisite: 40:008.
40:060. Psychology and Contemporary Issues- $\mathbf{2}$ hrs. May be repeated once for credit.
40:106(g). Psychology of Human Differences- $\mathbf{3}$ hrs. The nature and extent of human differences as they apply to an understanding of general psychology of the individual and group differences in a social setting. Prerequisite: 40:008 and 40:049.
40:118(g). History and Systems of Psychology-3 hrs. Prerequisite: One course in psychology or departmental approval.
40:120. Introduction to Developmental Psychology -3 hrs .
Theory and research methods used in study of development of organisms (especially human); developmental perspective as part of the process of psychological inquiry. Prerequisite: 40:008 or equivalent.

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40:130. Computer Programming for Psychological Applications- $\mathbf{2}$ hrs.
FORTRAN programming and utilization of library programs and systems. Statistical analysis and related problems common in psychological applications. Prerequisite: one course in statistics recommended. Laboratory. No credit for student who has credit in 80:070.
40:142(g). Abnormal Psychology- 3 hrs.
Causes of abnormal behavior. Characteristics of major abnormalities. Classification of organic and functional distrubances. Prerequisite: Previous work in psychology or instructor's permission.
40:150(g). Conditioning and Learning- 3 hrs.
Basic concepts and processes in learning. Five periods per week. Prerequisite: 40:049 and 40:030 or graduate standing.
40:151(g). Psychological Measurement- 3 hrs.
Provides a basic knowledge of measurement methods as they apply to the areas of psychology; a variety of quantitative methods to aid in the understanding of research literature and psychological theories; ways of gathering or evaluating quantitative measurement data. Introduces the student to fundamental concepts and problems relating empirical phenomena to an organized body of theory and knowledge in psychology. Prerequisite: 40:008; 40:049; or permission of the instructor.
40:153(g). Thought and Language- 3 hrs .
A study of complex human behavior with emphasis on cognitive variables intervening between the observable stimulus and response. Includes the topics of language, thinking, concept formation and problem solving with related motivational constructs. Prerequisite: permission of instructor.
40:154(g). Principles of Perceptual Learning and Development- 3 hrs.
Study of progressive changes in perception in human and animal sub-adults resulting from maturational processes and learning experiences. Prerequisite: 40:030 or permission of instructor.
40:155(g). Physiological Psychology- 3 hrs.
The psychology of man as a biological organism possessing high adaptability to a variable and changing environment; the response mechanism and the internal environment of the body; the relationship of the brain to sensory and motor functioning. Prerequisite: 40:008 and the permission of the instructor. 84:038 or the equivalent recommended.
40:157(g). Industrial Psychology I: Personnel Psychology- $\mathbf{3}$ hrs.
Processes involved in recruiting, selecting, training, and evaluating employees in all types of organizations: underlying assumptions and current techniques in use. Prerequisite: 40:008 or equivalent.
40:158(g). Industrial Psychology II: Organizational Psychology- 3 hrs.
Work motivation, job satisfaction, work group influences, and the structure of work; explores the most influential theories in the field and the most
widely used applications of theories. Prerequisites 40:008 or equivalent. Recommend be preceded by 40:157.
40:160. Introductory Social Psychology- $\mathbf{3}$ hrs.
Overview of social psychology from perspective of general psychology; includes social perception, at traction and liking; affiliation, social influence; group dynamics, and attitude formation and change. Prerequisite: 40:008 or equivalent.
40:161(g). Psychology of Personality- 3 hrs .
Prerequisite: Previous work in psychology or instructor's permission.
40:162(g). Social Psychology- $\mathbf{3}$ hrs.
Prerequisite: 40:049 or permission of the instructor.
40:163(g). Developmental Psychology- 3 hrs.
Research and theories on the processes of development. Prerequisites: $40: 030 ; 40: 049 ; 40: 120$; or permission of instructor.
40:165(g). Physiological Psychology Laboratory - 2 hrs.

Basic laboratory procedures used by physiological psychologists; to accompany 40:155. Student will design and implement a research project. Prerequisite: 40:008 or equivalent; corequisite: 40:155. Recommend be preceded by $84: 138$ or equivalent.
40:166(g). Clinical Psychology- 3 hrs .
Contemporary practice of clinical psychology with emphasis on the theories and techniques of behavioral assessment. Prerequisite: 40:008 or equivalent.
40:170(g). Drugs and Individual Behavior- $\mathbf{3}$ hrs.
Effects of psychoactive drugs on behavior; legal and ethical aspects of studying drug effects and regulating drug use discussed with drug abuse as a psychological phenomenon. Prerequisite: junior standing or permission of instructor.
40:180(g). Senior Thesis- $1-6$ hrs.
Written report based on the analysis of a psychological puviiem, supervised by faculty committee. Prerequisite: senior standing and approval of department.
40:188(g). Readings in Psychology-1-3 hrs.
May be repeated for up to 3 hours of credit.
40:189(g). Seminar in Psychology- $1-3 \mathrm{hrs}$.
Provides opportunity to correlate previous course work and knowledge in field of psychology, Prerequisite: 15 hours in psychology. May be repeated for up to 6 hours of credit.
40:192(g). Practicum in Teaching Psychology

## - $2-3 \mathrm{hrs}$.

Organization and teaching of psychology; student serves as participant-observer in 40:008, 40:009, or 40:030. Prerequisite: Declared major or minor with at least junior standing and instructor's permission.

## 40:193(g). Research Experience in Psychology $-1-3 \mathrm{hrs}$.

Research participation and/or independent supervised research including experience in each of the following: Search of the literature; analysis of theoretical issues; design, instrumentation, and conduct of one or two major experiments; analysis of
results; and preparation of research reports. Prerequisite: 15 hours in psychology and permission of the department. A total of six semester hours of credit may be allowed.
40:198. Independent Study.

## Social Science

There is no social science department as such. The programs and the general courses in social science are offered under the jurisdiction of the Social Science Education Committee and the general supervision of the Dean of the College of Business and Behavioral Sciences. Students will be advised by committee members from the departments of Economics, Geography, History, Political Science, and Sociology and Anthropology.
SOCIAL SCIENCE MAJOR-TEACHING
Required: 97:025*; 92:053; 94:014; 98:058 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 hours
Required: 90:190. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Required: 3 hours from 96:014 or 96:015 or from 96:154 or 96:155
3 hours
Required: minimum of 9 hours in each of any 3 social science disciplines (only one field of history-European or American-may be selected) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 27 hours 45 hours
*97:031 may be substituted for 97:025

1. A minimum of 12 hours in each of any three social science disciplines is required for approval to teach. Any course taken to meet General Education requirements in the social sciences may not be used to meet the course requirements of the major. General Education courses in the social sciences may not be used to qualify for approval to teach social science subjects.
2. Geography certification- 2 systematic courses and one regional course are required (see pp. 87-88 for description of these courses).
3. Only one field of history (European or American) may be selected as one of the three areas of the major.

American history certification: 96:014 and 96:015 required plus six (6) additional hours in American history.
World history certification: 96:154 and 96:155 required plus six (6) additional hours in European history. One 3-hour course in Asian history may be used.
4. Political Science certification-one 3-hour course in comparative government or international relations.
5. Junior High Teaching-students desiring to teach at the junior high level are urged to complete areas in American history, geography, and political science. The following courses are also recommended: 20:116, 21:178, and 23:130.
6. Anthropology courses do not count toward certification in the sociology area.
SOCIAL SCIENCE SUBJECT FIELD—Middle School/Junior High School Education Major*
Required: 90:190; 92:053; 94:014; 96:014 or 96:015; 97:025 or 97:010; 98:058 ..... 18 hours
Electives in no less than three of the above fields ..... 12 hours30 hours(*See Department of Curriculum and Instruction, p. 111)
GENERAL COURSES IN SOCIAL SCIENCE

90:010. Contemporary Affairs A-1 hr. May be repeated for credit.
90:110. Contemporary Affairs B-1 hr. May be repeated for credit.
$\mathbf{9 0 : 1 9 0}$. The Teaching of the Social Studies- $\mathbf{3} \mathrm{hrs}$. Prerequisite: 12 hours in social science. Ordinarily should precede student teaching.
90:199(g). Study Tour, Europe- $\mathbf{6} \mathbf{h r s}$.
Residence study at leading European universities, followed by study tour of the Continent, including visits to historical and cultural centers.

90:199(g). Study Tour, Latin America- 6 hrs.
Six weeks' study in Latin America with emphasis on the social aspects of countries visited.
90:280. Social Science Seminar- $\mathbf{3}$ hrs.
May be repeated for a maximum of 6 hours. Prerequisite: departmental approval.
90:291. Problems in Teaching the Social Studies

- 2 hrs .

90:297. Practicum
90:299. Research.

## Sociology, Anthropology, and Social Work

Stockdale, Head. Amundson, R. Anderson, Brintnall, W. Brown, Chadney, Claus, Dohrman, M. Greene, T. Hill, T. Keefe, B. King, R. Kramer, Lutz, J. Martin, Noack, Ormsby, Roberts, Sharma, Wernimont.

## SOCIOLOGY MAJOR-TEACHING

Required: 98:058; 98:060; 98:080*; 98:085; 98:170; 90:190; 94:014; 92:053 or 99:011
Electives in sociology and social work . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9 hours
33 hours
*40:049 or 80:172 may be used in lieu of 98:080.
Six hours of social work courses (except 45:183, 45:184, and 45:185) may be applied on this major.

At least 18 hours of credit toward the major must be upper division courses.
A minor is required; and it is strongly recommended that the minor be in another social science discipline (economics, geography, history, or political science).

## SOCIOLOGY MAJOR

Required: 98:058; 98:060; 98:080*; 98:085; 98:170; any two of the following: 99:011, 92:053, 94:010 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 20-21 hours
Electives in sociology and social work . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 hours
35-36 hours
*40:049 or $80: 172$ may be used in lieu of 98:080.
Six hours of social work courses (except 45:183, 45:184, and 45:185) may be applied on this major.

At least 18 hours of credit toward the major must be upper division courses.
No minor is required.

## SOCIOLOGY MINOR-Teaching and Liberal Arts

Required: 98:058; 98:060 6 hours
Electives in sociology, anthropology, and social work 15 hours 21 hours
Three hours of anthropology may be applied on this minor.
Three hours of social work (except $45: 183,45: 184$, and $45: 185$ ) may be applied on this minor.

## ANTHROPOLOGY MAJOR

Required: 99:010; 99:011; *98:080; 63:010 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 hours
Required: one of the following area courses: 99:131; 99:132;
99:134; 99:136; 99:137
3 hours
Electives in anthropology . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 hours
27 hours
*40:049 or 80:172 may be substituted for 98:080.
No minor is required.

## ANTHROPOLOGY MINOR

Required: 99:010; 99:011 6 hours
Required: one of the following area courses; 99:131; 99:132; 99:134; 99:136; 99:137. 3 hours
Electives in anthropology 6 hours 15 hours


## SOCIAL WORK MAJOR

Required social work: 45:181; 45:182; 45:183; *45:184;
45:130; 45:085
23 hours
Required: 98:060; **98:080; 40:120 or 31:055; 40:142;
98:100 or 40:160
15 hours
Electives: at least nine hours from the following-
45:110; 45:120; 45:121; 45:185; 45:187; 45:194
9 hours
47 hours
*320-360 clock hours of field instruction are required for departmental certification as a social worker. There are two plans for fulfilling this requirement: (1) a concurrent plan, and (2) or (3) a block plan, with 8 to 10 hours of credit:
(1) three days per week for one semester, 10 hours credit;
(2) fuil time for one-half semester, 8 hours credit;
(3) 8 -week summer plan, 8 hours credit.

Eight (8) hours of additional credit may be earned under 45:188. These additional hours will not satisfy required or major elective hours.
**40:049 or 80:172 may be substituted for 98:080.
Note: There is no minor required for the social work major. Opposite the 9 -week 45:184 the student will take courses specifically arranged for this major as announced in the Schedule of Classes. Where two or more courses will satisfy major requirements, students are encouraged to take both or as many courses listed as interest and scheduling allow.

To declare a social work major a student must have a cumulative grade point average of at least 2.40 or permission of the Chairman of the Department of Sociology, Anthropology, and Social Work to enter the major on a probationary status. To remain a social work major, a student must maintain at least a 2.40 cumulative grade point average or obtain permission of the department chairman to remain on probationary status. A student must pass all social work courses to receive a social work certificate.

Students wishing to declare a social work major may obtain an application form from the department office and make formal application to the Department of Sociology, Anthropology, and Social Work. To declare the major, students must have passed a college or university level course in English composition or demonstrate through examination competence in writing to the satisfaction of the departmental Admissions Committee.

NOTE: 98:058 is a prerequisite to all courses in Sociology except 98:060 and 98:080 and those courses indicated as Social Work.)

## SOCIOLOGY

98:058. Principles of Sociology- $\mathbf{3}$ hrs.
A scientific approach to the analysis and understanding of culture, human groups and institutions, personality, self, and social control.
98:060. Social Problems- $\mathbf{3}$ hrs.
An analysis of the nature and range of social problems arising in modern industrial society. Consideration given to the conditions creating them and the methods by which society seeks to cope with them.
98:080. Statistics for Social Research- $\mathbf{3} \mathbf{~ h r s . ~}$
Introduction and application of statistical methods to problems in social research: classification and presentation of statistical data, measures of central tendency and variability, measures of relationships
linear correlation and regression, probability, hypothesis testing and statistical inference.
98:085. Research Methods in Social Relations- $\mathbf{3}$ hrs. Examination and application of methods of collecting, analyzing, and publishing sociological data. Prerequisite: 98:058. (same as 45:085)
98:100(g). Individual Behavior- $\mathbf{3}$ hrs.
The development of individual conforming b havior; a systematic analysis of the individy socialization process through human interaction among persons, within primary groups, institution and the human community as a communicatio process. Prerequisite: 98:058.
98:101(g). Collective Behavior-3 hrs.
The development of collective, non-conformi-
behavior; a systematic analysis of collective deviant, non-normative behavior in panic situations, crowds, masses, publics. The organization and behavior of sects, cults, interest groups. Social movements. The analysis of fads, fashions, crazes. The development of public opinion and propaganda. Prerequisite: 98:058.

## 98:105. The Family-2 hrs.

The institutional aspects of family life. Prerequisite: 98:058
98:110. Urban Sociology- $\mathbf{3}$ hrs.
An analysis of the nature, causes, and consequences of urbanizatin throughout the world; the growth and structure of metropolitan areas; social characteristics of urban populations. Prerequisite: 98:058.

## 98:111. Rural Sociology- $\mathbf{3}$ hrs.

Rural peoples; their communities and social institutions; relationship between country and city; the tide of social change, its problems and promises; world-wide perspective but with special emphasis on the United States. Prerequisite: 98:058.
98:114(g). The Sociology of Work- $\mathbf{3}$ hrs.
The study of individual and organizational behavior in work and production. The structure and function of work groups and formal work organizations in changing industrial society. Prerequisite: 98:058.

## 98:120(g). Crime and Delinquency- $\mathbf{3}$ hrs.

Types and causes of crime and delinquency; criminal behavior systems in American culture; correctional treatment and crime prevention. Prerequisite: 98:058.

## 9:121(g). The Sociology of Mental Illness- $\mathbf{3}$ hrs.

A study of the social factors associated with mental illness; its onset, the organizational context of its care and treatment, and its effects on various societal institutions. Prerequisite: 98:058. (same as 45:121)

## 9:130(g). Minority Group Relations- $\mathbf{3} \mathbf{~ h r s . ~}$

A study of the interpersonal and social relations of minority groups within the larger American society, with special reference to Black-White relations. Prerequisite: 98:058. (same as 45:130)
$\mathbf{\%}: 135(\mathrm{~g})$. Social Stratification- $\mathbf{3}$ hrs.
Origin, development, and characteristics of social class and caste systems. Indices of class position, interaction between classes, social mobility, and theories of stratification. Prerequisite: 98:058.
\$8:136(g). Community Structure and Change- $\mathbf{3}$ hrs. Critical analysis of approaches to studying community; examination of current and emerging community problems and patterns of change; analysis of relationships between community structure and the effectiveness of change strategies at the community level. Social stratification and social power and relationships among theory, research and action will be emphasized. Prerequisite: 98:058.
98:137(g). Social Policy and Policy Change- 3 hrs.
Definition of social policy; impact of social policy on social welfare institutions, social services, and
people; frameworks for assessing policy in social work practice settings, their value and power basis, and vested interests served. Utilizes systems centered and problem centered models for assessing and changing policy derived from social work community organizations and social action practice to examine current policies relevant to social welfare and social work. Junior standing required. (same as 45:120)
98:144(g). Population- 3 hrs.
Comparative study of population composition, growth, and major trends throughout the world; includes fertility, migration, and mortality. Introduction to techniques of population analysis; theories of population change, and problems of population policies. Prerequisite: 98:058.

## 98:150(g). Sociology of Conflict- $\mathbf{3}$ hrs.

Past and current theories of human aggression, competition; rational and nonrational conflict, as well as mass and individual violence. Special attention given to social determinants of conflict. Prerequisite: 98:058.

## 98:156(g). Social Movements- $\mathbf{3}$ hrs.

Sociological and socio-psychological conceptualizations of the genesis, dynamics, and demise of modern social movements. Stress is given to reformist, utopian, nativistic, and totalitarian organizations. Prerequisite: 98:058.

## 98:170. The Development of Modern Social Theories- $\mathbf{3}$ hrs.

Summary and critical appraisal of the growth of sociological throught; historical consideration of social philosophy; introduction of leading sociological thinkers and their theories of society. Prerequisite: 98:058
98:171(g). Contemporary Sociological Theory- $\mathbf{3}$ hrs. A study of the main currents in contemporary sociological thought; principle sociological theorists, major schools and trends in theory; social causation, social evolutionism, social change, and structural-functional analysis. Prerequisite: 98:170 or consent of instructor.
98:172(g). Sociology of Religion- $\mathbf{3}$ hrs.
Examination of the social bases of religious institutions; factors in religious evolution and change; comparative analysis of religious organizations and religious behavior; functions of religion in the social structure. Prerequisite: 98:058.
98:173(g). Alienation- $\mathbf{3}$ hrs.
An exegesis of the concept of alienation as conceived by Hegel, Marx, and current sociologists; emphasis on industrialism, the division of labor and its relationship to social reification, mystification, and objectification. Prerequisite: 98:058.
98:176(g). Social Change- $\mathbf{3}$ hrs.
Nature of social change and its implications for personality and society. Perequisite: 98:058.
98:189(g). Readings in Sociology-1-3 hrs.
Prerequisite: 9 hours in sociology and departmental permission. May be repeated only with approval of department.

98:198. Independent Study.
98:280. Seminar in Sociology-3 hrs.
Seminars are offered in special topics; such as Sociological Theory, Deviant Behavior Social Psychology, Social Stratification, Population, Sociological Research, Sociology of Religion, and others. The topic to be used for a specific semester will be listed in the Schedule of Classes. An advanced course in the specific area scheduled will be considered a prerequisite to that seminar. Enrollment in different topics is not limited, but a student should not enroll in two seminars on the same topic.
98:285. Individual Readings- $\mathbf{1 - 3} \mathbf{~ h r s . ~}$
98:297. Practicum.
98:299. Research.

## ANTHROPOLOGY

99:010. Origins of Man and Culture- $\mathbf{3} \mathbf{~ h r s . ~}$ Introduction to the physical and prehistoric development of man, including primate and human evolution, modern races, and the archaeological cultures of the world.
99:011. Social and Cultural Anthropology- $\mathbf{3}$ hrs.
Introduction to the anthropological analysis of man's cultures, including a brief survey of the cultures of the world and theoretical approaches anthropologists use in order to study them. Also a brief introduction to anthropological linguistics.
99:131. Peoples and Cultures of the World- $\mathbf{3}$ hrs.
Investigation of selected life-ways drawn from various parts of the world. Designed for students seeking an understanding of the social and cultural variables influencing human behavior. Prerequisite: 99:011 or consent of instructor.
99:132. North American Indian-3 hrs.
An examination of the tribes of North America, including northern Mexico, covering both archaeology and ethnology.

## 99:134(g). Culture Change Among Woodland Indians- $\mathbf{3}$ hrs.

Selected Indian cultures in the Great Lakes area from the late 1700 's to the present; emphasizes dynamics of culture change and selected topics related to contemporary reservation and urban life. Prerequisite: 99:011 or consent of instructor.
99:136(g). Anthropology of South Asia-3 hrs.
The social and cultural organization of India and Pakistan with particular reference to contemporary village life. Prerequisite: 99:011 or consent of instructor.
99:137. Anthropology of Latin America-3 hrs.
Highland and lowland peoples of Middle and South America (including primitive agriculturalists and peasants); their relation to the larger society as well as their internal social arrangements. PreColumbian background, the Conquest, and the present ethnology.

99:160(g). Psychological Anthropology-3 hrs.
Psychological dimensions of sociocultural systems considered in a comparative perspective. Includes historical development and logical status of the field, personality in sociocultural contexts, cognitive anthropology, and other issues in ethno psychology and ethnopsychiatry. Prerequisifí 99:011 or consent of instructor.
99:161(g). Religion, Magic, and Witchcraft- 3 hrs. Anthropological understanding of behavior dealing with the supernatural; supernatural beliefs, practices, and movements throughout the world. Prerequisite: 99:011 or consent of instructor.
99:162(g). Cultural Change and Evolution- 3 hrs.
Classical and modern anthropoligical thought on how the present diversity of human culture developed out of the hunting and gathering groups of the early pleistocene. Prerequisite: 99:011.
99:163(g). Social Organization of Primitive Peoples- $\mathbf{3}$ hrs.
Varieties of social structure in selected non-literate societies. Role of kinship, age, sex, environment economics and religion in determining relations between individuals and groups. Prerequisite: 99:011.
99:164(g). Cultural Ecology-3 hrs.
Diversity of human customs and beliefs in light of environmental conditions. Variety of ways in which society can integrate itself with or set itself against the environment. Perequisite: 99:011.
99:176(g). Anthropological Theory- 3 hrs.
Major theoretical developments in anthropology, it, cluding both historical and contemporary schoo and trends. Prerequisites: 99:011 and junior standing or consent of instructor.
99:180(g). Seminar in Ánthropoogy-3 hrs.
Selected problems within one of the subfields of anthropology (cultural, physical, archaeology, or anthropological linguistics). Topic for a specific semester to be listed in the Schedule of Classes. Prerequisites will vary with the topic. May be repeated for credit.
99:189(g). Readings in Anthropology- $1-3 \mathrm{hrs}$.
Prerequisite: 9 hours in anthropology and departmental permission. May be repeated only with permission of department.
99:198. Independent Study.

## SOCIAL WORK

Note: Courses in Social Work may not be applied on Sociology majors or minors.
45:085. Research Methods in Social Relations- $\mathbf{3}$ hrs. Prerequisite: 98:058. (same as 98:085)
45:110(g). Human Behavior and the Social Environment- 3 hrs.
Assessment of the applicability of various perspectives of human behavior to social work diagnosis, planning, and intervention; general systems theory serves as organizing framework. Student should have a strong base of courses in human behavior. Prerequisite: 31:055 or 20:139 or $98: 100$ or 40:161.

45:120(g). Social Policy and Policy Change- $\mathbf{3}$ hrs. Definition of social policy; impact of social policy on social welfare institutions, social services, and people; frameworks for assessing policy in social work practice settings, their value and power basis, and vested interests served. Utilizes systems centered and problem centered models for assessing and changing policy derived from social work community organizations and social action practice to examine current policies relevant to social welfare and social work. Junior standing required. (same as 98:137)
45:121(g). Sociology of Mental Illness- $\mathbf{3} \mathbf{h r s}$.
Prerequisite: 98:058. (same as 98:121)

## 45:130(g). Minority Group Relations- $\mathbf{3}$ hrs.

Prerequisite: 98:058. (same as $98: 130$ )
45:181. Introduction to Social Wellare- $\mathbf{3}$ hrs.
Historical development of social welfare services and the values which underlie them. A general survey of types of social welfare services: issues and controversies in social welfare.
45:182. Social Work Services- $\mathbf{3}$ hrs.
How social work seeks to deal with human problems and effect social change; ways in which social work addresses itself to social problems.
Prerequisites: 98:058; 98:060; 45:181.
45:183. Social Work Methods I- $\mathbf{3}$ hrs.
Analysis of the principal social work methodscasework, group work and community organization. Administration and research problems in social work. Prerequisite: 45:182.

## 45:184. Field Instruction-8-10 hrs.

May be taken on concurrent plan: (1) 3 days per week on semester basis for 10 hrs . credit; (2) full
time for half semester for 8 hrs. credit; or (3) eightweek summer plan for 8 hrs. credit. Prerequisite: 45:183 and approval of Field Instruction Committee.
45:185(g). Social Work Methods II- $\mathbf{- 3}$ hrs.
Social work practice dealing with community and agency systems; examination of locality development, social planning and social action strategies, assessment of character of social issues, social worker roles, sources of power, and conflict and consensus models of intervention. Prerequisites: 45:181; 45:183.

45:187(g). Therapeutic Communication- $\mathbf{3}$ hrs.
Human communication relevant to effective behavior change in the therapeutic relationship. Experiential learning in the core therapist facilitative conditions. Identification of critical therapisthelping person-and client variables which affect communication. Prerequisite: $\mathbf{4 5 : 1 8 1}$ or consent of instructor.

45:188. Advanced Field Instruction- $\mathbf{8} \mathbf{~ h r s .}$
Program for students who have completed the required Field Instruction hours in approved social work agency. Primarily for senior students. Prerequisite: 45:184.
45:189. Reading in Social Work-1-3 hrs.
Prerequisite: 6 hours in social work and departmental permission. May be repeated only with permission of department.
45:194. Integrative Seminar- $\mathbf{3}$ hrs.
Issues in social work practice; transition from student role to social work practice role. Focus on role conflicts, responsibility for social action, advocate functions, and leadership. Prerequisites: 45:181; 45:182; 45:183; 45:185; 45:110.


## College of Education

The College of Education has seven departments, each concerned with some aspect of professional education. Several departments include more than one field of study or service. The departments and subsidiary divisions include:

Curriculum and Instruction-(1) Early Childhood Education, Elementary Education, and Middle School/Junior High School Education, (2) Reading and Language Development, (3) Special Education, (4) Safety Education, and (5) Educational Media. The department also operates a Reading Clinic and an instructional laboratory for special education, a Day-Cara Center, and a demonstration classroom for preparing teachers for children with severe, profound, and multiple handicaps.

Educational Psychology and Foundations-(1) Educational Psychology, (2) Measuremeand Evaluation, and (3) Social Foundations of Education. The department is responsible for the common professional sequence required of all prospective teachers and also operates an Educational Clinic in conjunction with its program in school psychology.

## Library Science

Physical Education for Men
Physical Education for Women

- The physical education departments have separate undergraduate majors and minors in physical education and related areas such as athletic training, coaching, dance, and elementary education; joint majors and minors in health, health education, and recreatio and a joint master's degree program in physical education.

School Administration and Personnel Services-(1) School Administration, and (2) Student Personnel Services.

Teaching-This department is responsible for the operation of the Malcolm Price Laboratory School and for the supervision of all student teaching.
Since its establishment in 1876 as the Iowa State Normal School, the University of Northern Iowa has maintained its prime committment to the support of the excellence in teacher educations This commitment was recognized by the Iowa General Assembly in 1967 when the function of the university was redefined to include as its primary responsibility the preparation of ". . .teachers and other educational personnel for schools, colleges and universities..." It is also acknowledg. by the university in organizing and defining teacher education as an all-university function.

The College of Education, however, has a particular responsibiltity for teacher education Most of the graduate and undergraduate majors within the college are teaching program majors, but the most widespread influence on teacher education stems from the fact that all students seeking certification take their professional preparation in the College of Education. This professional preparation consists of a required professional sequence common to all majors and a culminating student teaching experience, under university supervision, in one of the schools of the state.

The college is deeply involved in continuing education, working closely with school personna throughout the state on curriculum projects, surveys, and other types of consultative activities, as well as sponsoring conferences and offering classes, institutes, and workshops both on and off campus. These activities illustrate the college's commitment to its service obligations, but the college also recognizes the critical importance of such involvement for insuring the vitality and relevance of its graduate and undergraduate programs of teacher education.

Departmental faculty members within the College of Education are engaged in writing and research activities along with their classroom instruction. The Malcolm Price Laboratory School
represents one area in which experimental and innovative projects are in continual operation, and these projects are open for observation and participation. Other research activities are also carried on by faculty and students.

In addition to programs leading to the Bachelor of Arts degree, graduate programs are available for the Master of Arts, the Master of Arts in Education, and the Specialist in Education degrees. All of the programs offered in the College of Education have a career orientation. Most of the programs are preparatory to a career in education as a teacher, school library media specialist, counselor, administrator, or supervisor; the exceptions are in closely related fields: an undergraduate recreation major, and graduate majors in counseling and in communications media.

## Curriculum and Instruction

Schnur, Head. Aldridge, Allen, Brady, Broeren, Courtnage, Eakin, Eland, Eller, Euchner, Gabrielse, Goro, Hampton, Hardman, Harms, Hatcher, Healy, Heller, Hosier, Kueter, Kuse, Lahey, Lamberti, Little, Marchesani, Michaelis, J. Miller, Nogy, A. Odwarka, Ratekin, Schmid, M. Shaw, S. Stainback, W. Stainback, Suroski.

## EARLY CHILDHOOD EDUCATION MAJOR

This major leads to certification for teaching in nursery school and kindergarten only. The student will complete the General Education requirements, the Common Professional Sequence, the specified major requirements, a Professional Semester, plus electives to complete a minimum of 130 hours. The prescribed program is as follows:

Major requirements: 20:109; 21:044; 21:149; 21:154; 37:013......................... . . 12 hours
Professional Semester: 21:105; 21:192; 23:110 ...................................... 17 hours
To be taken simultaneously during the semester immediately preceding the Student Teaching. A 2.15 grade index is required to take the Professional Semester.
Within the student's total program (including General Education) at least one course in each of these fields should be included: art, mathematics, music, science, sociology or anthropology, speech or speech pathology. A student must take a course in American history or American government for certification.

The student should include, also, a concentration of at least 15 semester hours in one of the following areas: art and industrial arts, English and speech, health and physical education, mathematics, a modern foreign language, music, science, or social science.

A student who wishes to be certified for elementary grades above the kindergarten should include the following work in addition to the required work listed above: a course in geography, one in English, an elective in reading, and $21: 152,80: 134$, and 4 hours of $28: 134$.

## ELEMENTARY EDUCATION MAJOR

The student will complete the General Education requirements, the Common Professionat Sequence, a Professional Semester, the major requirements, the Emphasis requirements, as indicated, and electives to complete a minimum of 130 hours. The prescribed program is as follows:
Major requirements: 20:100; 21:044; 22:150; 24:031 or 24:131;
37:013; 2 - or 3 -hour elective in reading
13 to 15 hours
Professional Semester: 21:101; 23:110; 80:134
17 hours
To be taken simultaneously during the semester immediately preceding
Student Teaching by all elementary education majors except those with
an emphasis in Reading. A 2.15 grade index earned at the University of
Northern Iowa or the approval of the head of the Department of Cur-
riculum and Instruction is required to take the professional semester.

The student should plan his total program (including General Education) to include some course work in each of these fields: art, English, geography, mathematics, music, science, and speech or speech pathology. A student must take a course in American history or American government for certification.

Students with an emphasis in Lower or Upper Elementary will include a concentration of at least 15 semester hours in one of the following areas: art and industrial arts, English and speech, health and physical education, mathematics, a modern foreign language, music, science, or social science.

## EMPHASES:

The student will choose one of four emphases, indicating the area in which he would like to teach, and take work appropriate to this emphasis.

1. UPPER GRADES: The student will enroll in sections of courses marked $(z)$ in the schedule of classes when available, and do student teaching at the upper grade level. There are no specific emphasis requirements.
2. LOWER GRADES: The student will enroll in sections of courses marked $(y)$ in the schedule of classes when available, and do student teaching at the lower grade level. There are no specific emphasis requirements.
3. SPECIAL EDUCATION: This emphasis is further subdivided into two areas of specialization with appropriate requirements indicated for each as follows:
Special Education:
Required: 22:170; 22:171; 22:174; 22:185; 22:192 ............................ . 11 hours
Required: two courses from 22:180, 22:182; 22:183; 22:187 ................... . 6 hours
Required: 22:192 (chosen from one area: Profound, Pre-academic,
Primary, or Intermediate) ...............................................................
19 hours
Gifted:
Required: 22:154, 22:192; 24:132 or 35:132 ...................................... . . 9 hours
4. REMEDIAL READING: This emphasis satisfies the state requirement for approval as an elementary reading teacher.

Required: 23:147; 23:148; 50:130; 23:192; 23:193; 62:162 or a course in linguistics; additional elective reading

18-21 hours
5. READING AND LANGUAGE ARTS: A basic core of methods courses in reading and language arts is required as well as supporting areas. This emphasis and requirements for the elementary education major can be completed concurrently.

Required: 23:111; 23:112; 23:113; 23:140; 23:193;
50:130; 62:162
22 hours

## MIDDLE SCHOOL/JUNIOR HIGH SCHOOL EDUCATION MAJOR

This major is designed to prepare students to teach in the middle school or the junior high school (grades 4 through 9) with an approval on an elementary certificate to teach in the selected subject field(s) through grade nine (9). The student will complete the General Education requirements, the common professional sequence, the major requirements, a Professional Semester, a subject field area of 20 to 29 hours, and electives to complete a minimum of 130 hours. The student must include a course in American history or American government for certification.

In order to be approved to teach at the 9th-grade level, specific requirements must be completed from a selected list of courses available in the Department of Curriculum and Instruction.

Students are encouraged to plan their programs carefully and to complete requirements in two subject field areas if possible.

Required: 20:116; 21:044; 22:150; 23:130; 24:031 or 24:131 . . . . . . . . . . . . . . . . . . . . . . . 14 hours
Professional Semester: 21:170; 23:110; 80:134
17 hours
Subject Field: At least one area chosen from the following (see below for requirements for each
program - also see departmental statements):
Foreign Languages (French, German, Spanish)
Home Economics
Industrial Arts
Language Arts
Mathematics
Science
Social Science
Coaching Endorsement: Option I, Option II
General, Electives, Or Additional Subject Field-
The student may complete a secondary minor in an area other than his subject field. He may also utilize his electives to strengthen his academic preparation in one field, or strengthen his preparation in general education, professional education, or psychology.

## SUBJECT FIELD Requirements

## Foreign Language-

French: 72:001; 72:051 and 72:061; 72:070; 72:101; *72:103 or 72:124 or 72:125; plus a 2-hour course in methods or pre-practicum

21 hours (*If 72:103 is elected, the student is strongly advised to take one of the two courses in French Civilization.)
German: 74:051 and 74:061; 74:052 and 74:062; 74:101; 74:123; 74:071 or 74:103 or 74:180; 74:190

21 hours

Spanish: 78:051 and 78:061; 78:101; 78:103; 78:123 or 78:142;
plus a 2-hour course in methods or pre-practicum

21 hours

Home Economics-
Required: 31:010; 31:015; 31:035; 31:037; 31:051; 31:060; 31:065; 31:070; 31:152

25 hours

## Industrial Arts-

Required: 33:005; 33:011; 33:020; 33:022; 33:032; 33:036; 33:190 ............. 25 hours
Required: two of the following: 33:016, 33:018, 33:183 . . . . . . . . . . . . . . . . . . . . . 4 hours
Language Arts-
Required: 62:002; 62:034; 62:165; 62:190; 21:044; 23:110; 23:130; plus a 2-3 hour course in speech $24-25$ hours
Mathematics-
Required: 80:030; 80:131; 80:134; 80:191; 80:111; 80:112; 80:070 or 80:080; 80:153 or 80:172; 80:113 or 80:144 25 hours
Science-The student wishing approval to teach science in the Middle School/Junior High Schoolwill have a program planned to meet his individual needs. The program must be approvedby the Science Education Coordinating Committee.
Social Science-
Required: 90:190; 92:053; 94:014; 96:014 or 96:015; 97:025 or 97:010; 98:058 18 hours
Electives: courses in no less than three of the above fields ..... 12 hours
30 hours
Coaching Endorsement-
The coaching endorsement is for K-12. However, it does not qualify the student for cer- tification to teach physical education at any level. It is offered in two options as follows: OPTION IRequired: (coaching theory) $38: 115 ; 38: 150 ; 38: 155$;38:17510 hours
Electives: 9-10 hours from -*38:101; 38:102; 38:103; 38:104; 38:108; 38:109; 38:125 9-10 hours
Optional elective: *selection of $38: 101$ requires addition of 38:020 (Football) $0-1$ hour20 hours
OPTION II
The student should have directed or supervised laboratory experience in coaching; or- dinarily this would be done during the time of student teaching.
Required: 37:050; 37:151; 37:153; 39:143; 39:145 ..... 13 hours
Required: 2-3 hours from 39:036 ..... 2-3 hours
Required: 4-6 hours from 39:140 ..... 4-6 hours
EDUCATION OF THE HANDICAPPED-SECONDARY LEVEL MINOR
Required: 22:150; 22:174; 22:170; 22:171; 22:181; 22:182; 22:185 ..... 17 hours
Required: 28:135 ..... 4 hours
Required: 22:192 (two hours each of tutorial and secondary experience ..... 4 hours25 hours
EDUCATIONAL MEDIA MINOR-Liberal Arts
Required: 24:031 or 24:131 ..... 3 hours
24:137 ..... 2 hours
Electives: 11 hours in Educational Media courses ..... 11 hours

## GENERAL, ELEMENTARY, AND EARLY CHILDHOOD EDUCATION

21:044. Children's Literature- $\mathbf{3}$ hrs.
Literature materials for the elementary grades; emphasis on goals, scope, and methods. To develop ability to evaluate library materials.
21:101(g). Elementary Methods and Materials -10 hrs .
This fused course deals with the methods and materials used in the elementary school in relation to the development of the child. It embodies the content of such courses as the teaching of elementary social studies, science, art, and music. Prerequisite: 20:14, 20:16.
21:105(g). Learning Experiences of Young Children- 10 hrs.
Experiences, methods, and materials for teaching young children. Prerequisite: 20:014, 20:016.
21:142(g). Methods in Elementary Science- 2 hrs.
Investigation and implementation of commercial and teacher-constructed materials and appropriate instructional strategies for contemporary elementary school science programs.

## 21:143(g). Social Studies in the Elementary School -2 hrs.

Methods and materials for teaching the knowledge, attitudes, and skills in social studies.

## 21:144(g). Literature for Elementary Children

 -3 hrs .An advanced course in children's literature. An elementary course in children's literature should precede this course.

## 21:145(g). Storytelling-2 hrs.

Art and techniques of storytelling to enrich the elementary classroom learning experiences. 21:044; 21:144 or 35:132 should accompany or precede this course.
21:148(g). Parent Education- $\mathbf{3}$ hrs.
Methods, materials, and responsibilities for informing parents of the goals and programs of the school for an understanding that will lead to stronger cooperation and support.

## 21:149(g). Parent and Community Relationships -2 hrs.

Procedures for developing home-community-school relationships to promote the education of each child in reaching his maximum potential. Emphasis on preschool-kindergarten level.

## 21:151(g). Early Childhood Curriculum-3 hrs.

Current trends in curriculum for preschool children. No credit for student with credit in 21:105.

## 21:152(g). Elementary Curriculum- $\mathbf{3}$ hrs.

Recent trends in the curriculum for children in grades K-6. No credit allowed for a student who has received credit in 21:101.
21:154(g). Nursery School and Kindergarten-2 hrs. Background for establishing and administering a preschool facility; investigates equipment, supplies,
staffing, financing, policy statements, and curriculum planning for day care, nursery school, and kindergarten.
21:170(g). Methods and Materials for the Middle School/Junior High School- 10 hrs.
Teaching strategies, materials, and school organization for grades 4 through 9 in both the traditional junior high and middle school settings; methods of teaching both the preadolescent and the adolescent.

## 21:178(g). The Junior High School-5 hrs.

Rationale and development of both the junior high and middle school; stresses organization, curriculum, and instructional strategies to meet the needs of the early adolescent.

## 21:192(g). Experience- $\mathbf{2 - 4}$ hrs.

Offered in various specialized fields as listed in the Schedule of Classes, but may be taken only twice for credit in the same area.
21:289. Seminar in Education- $\mathbf{2}$ hrs.
Special topics listed in Schedule of Classes.
21:290. Practicum in Education and Psychology -2 hrs .
21:299. Research- $\mathbf{3} \mathbf{h r s}$.

## SPECIAL EDUCATION

22:150(g). The Exceptional Child- $\mathbf{3}$ hrs.
Introduction to education of the handicapped and gifted child; the exceptional child in the regular school setting; development of proper understanding and attitudes. Emphasis on needs, curriculum, and special education program.

## 22:154(g). The Gifted Child-4 hrs.

The educational needs of the gifted and talented child. Emphasis on characteristics, identification, underachievement, counseling, and motivation. Attention to curriculum and organization adaptations.
22:161(g). Braille $\mathbf{I}-3$ hrs.
Braille reading and writing for the education of blind children. Use of Braille writing equipment. Reading problems; observation of blind children; Braille in mathematics and music.
22:162(g). Braille II-3 hrs.
Advanced applications of Braille I, leading to Library of Congress cerifification for Braille transcribers; introduction to Nemeth code, Cranmex abacus, and teaching materials and equipment. Prerequisite: 22:161.
22:170(g). Educational Management of the Handicapped I- $\mathbf{3}$ hrs.
Prescription, implementation, and evaluation of educational solutions for students manifesting learning and behavioral disorders. Prerequisite: 22:150. Corequisite: 22:192 (Tutorial).
22:171(g). Educational Management of the Handicapped II- $\mathbf{3}$ hrs.
Educational management of the handicapped in group settings. Stress upon discipline and management techniques. Prerequisite: 22:170; corequisite: 22:192.

## 22:174(g). Teaching the Handicapped-2 hrs.

Overview of instructional programs for the handicapped from preschool through secondary levels. Lab. experience in the selection and evaluation of curriculum methods and materials. Prerequisite: 22:150.

## 22:180(g). Teaching the Handicapped: Primary- $\mathbf{3}$ hrs.

Instructional methods and materials for handicapped functioning at primary level. Emphasis on social and beginning academic skills. Includes teaching of retarded, learning disordered, and/or behaviorally handicapped individuals. Prerequisite: 22:174.

## 22:181(g). Teaching the Handicapped: Secondary- $\mathbf{3}$ hrs.

Emphasis on individual instruction programmed materials, and other techniques to improve academic, social, and vocational skills. Includes teaching of mildly retarded, learning disordered, and/or behaviorally hancicapped pupils. Prerequisite: 22:174.

## 22:182(g). Teaching the Handicapped: Intermediate- $\mathbf{3} \mathbf{~ h r s}$.

Instructional methods and materials for the handicapped functioning at intermediate level. Emphasis on acquisition of social and academic skills. Includes teaching the mildly retarded, learning disordered, and/or behaviorally handicapped individuals. Prerequisite: 22:174.

## 22:183(g). Teaching the Handicapped:

Preacademic- $\mathbf{3}$ hrs.
Instructional methods and materials for the handicapped functioning at the preschool or preacademic level. This may include teaching the trainable mentally retarded, severly brain injured, psychotic, and other handicapped pupils. Prerequisite: 22:174.
22:184(g). Home-School Relationships for Special Education- $\mathbf{3}$ hrs.
Utilization and coordination of special education services with the home and school to maximize the potential of the handicapped. Communication techniques and patterns of cooperation with parents and school personnel; guidance and counseling of the handicapped child and his parents. For seniors and graduate students only.
22:185. Readings in Special Education-1-2 hrs.
Reading and discussion of current methodological developments and innovations in special education. Recommended concurrent enrollment with 22:170, 22:174, and 22:192 (individual instruction. May be repeated once for a maximum of 2 hours credit.) 22:187(g). Teaching the Handicapped:

Profound- $\mathbf{3}$ hrs.
Instructional methods and materials for handicapped children functioning at developmental ages 0-3. Emphasis on definitions, characteristics, educational programs and adaptations. Includes teaching of children with severe or profound mental, physical and/or health problems. Prerequisite: 22:174.

22:192(g). Experience in Special Education- 24 hrs Supervised teaching and experience in specialized areas of reading or special education as listed in the Schedule of Classes. May be repeated with consem of the instructor. Prerequisites vary with the specific experience.

## 22:251. Vocational Programs for the Handicapped -3 hrs .

Development and implementation of work study and other vocational programs for handicappei adolescents and adults. Prerequisite: 22:174.
22:252. Community Resources for Special Education- $\mathbf{3}$ hrs.
Study of cooperation and coordinaton of the school and other agencies serving the handicapped, including various programs and services provided by governmental and private organizations.
22:278. Administration of Special Education- $\mathbf{3}$ hrs. Prepares administrators to plan programs for various areas of special education, to select personnel, provide instructional materials, interpret the program to the community, and be inforrned concerning legal provisions for special education.
22:289. Seminar-2 hrs.
22:290. Practicum-2-4 hrs.
22:299. Research.

## READING

23:110(g). Reading and Language Arts- $\mathbf{5} \mathbf{~ h r s . ~}$
Introductory course in the teaching of reading and other communication skills. Survey of recent literature and research in the field.

## 23:111(g). Language Development in the Elementary School- 3 hrs.

Development of children's oral and written language as communication tools with implications for the school curriculum; emphasis on interactions among language, thinking, and social development. cludes direct experience with children. Prerequis 23:110.
23:112(g). Issues and Trends in Elementary Reading- $\mathbf{3}$ hrs.
Recent methodological developments, new materials, and innovations in organization of the elementary reading curriculum.

## 23:113(g). Teaching Expressive Language Arts -3 hrs .

Creative aspects of oral and written language in elementary school; explores methods of fosteri; creative oral and written expression. Includes survey of recent literature and research in the field. Experience with individual children and small groups.

## 23:114(g). Materials and Techniques for Reading -2 hrs .

Analysis and evaluation of reading materials, including technological innovation. Adaptation and creative utilization of materials to meet specifit needs of children. Prerequisites: 23:110 or 23:130.

23:130(g). Reading for Adolescents- $\mathbf{3} \mathbf{~ h r s . ~}$
Introduction to the reading process, materials and methods of instruction, evaluation of reading achievement, and study of reading demands in the secondary curriculum. Recognition of characteristics of current secondary reading progams.
23:132(g). Reading in Content Areas- $\mathbf{2}$ hrs.
Evaluation of reading demands in school subjects. Suggestions for content area teachers and developmental reading teachers at secondary and upper elementary levels.
23:14(g). Diagnostic Teaching of Reading- $\mathbf{3}$ hrs. Instructional needs of individual children within the classroom. Includes group and individual evaluation; selecting materials, methods and activities for special problems; recognizing and referring students with specific learning disabilities. Prerequisite: 23:110 or 23:130.
23:147(g). Remedial Reading- $\mathbf{3}$ hrs.
Introductory course in remedial reading in public schools; theory, methods, and materials currently used. Prerequisite: a methods course in reading. Corequisite: 23:192.
23:148(g). Diagnosis of Reading Problems- $\mathbf{2}$ hrs.
Experience in administering and interpreting diagnostic reading tests. Survey of correlate and causal areas including introduction to tests frequently used by specialists. Prerequisite: 23:147.
23:192(g). Experience in Reading: Tutoring-2-4 hrs. Supervised tutoring in the University Reading Center or in a public school Reading Center. Prerequisite: instructor's approval.
23:193(g). Experience in Reading: Field-3-4 hrs.
One half day teaching in a school reading program. Prerequisites: 23:147 and 23:148 or instructor's approval.
23:210. Recent Research in Reading-3 hrs.
Research in reading with its implications for the classroom teacher and supervisor. Prerequisite: one course in the teaching of reading.
23:212. Psychology of Reading- $\mathbf{3}$ hrs.
An investigation of behaviors significantly related to the reading process, including visual and auditory perception, cognition, language, maturational, physiological and neurological factors and personality.
23:240. Reading Disability- $\mathbf{3} \mathbf{h r s}$.
Exploration of factors in reading disability, causes of severe disability, development of remedial programs, and the roles of specialists and parents in remediation. Prerequisite: 23:147 and 23:148.
23:242. Case Studies in Reading Disability-3 hrs.
The case study method designed to assist the student to develop the skills and techniques in writing case studies and to provide experience in utilizing case studies in planning and evaluating individualized remedial programs.
23:244. Research Design in Reading-2 hrs.
The evaluation of research designs in reading and construction of a research design for a selected problem.

23:289. Seminar- 2 hrs .
23:290. Practicum-2-4 hrs.

## 23:299. Research

## EDUCATIONAL MEDIA

## 24:031. Audio-Visual Communications- $\mathbf{3}$ hrs.

Role of educational media in the teaching-learning process. Selection, preparation, utilization and evaluation of instructional materials for specific communications. Discussion, 3 periods; lab., as arranged.
24:131(g). Resources for Communications- $\mathbf{3}$ hrs.
Selection, utilization, and implementation of multisensory materials in the preparation and design of messages.
24:132(g). Materials of Instruction- $\mathbf{3}$ hrs.
Laboratory work in the Curriculum Laboratory with all types of materials in the student's field. Especially for students interested in supervision; others should have departmental approval.

## 24:135(g). Media Administration- $\mathbf{2}$ hrs.

An advanced course to prepare a media graduate to administer any one or all of the specific areas of media.
24:137(g). Preparation of Instructional Materials -2 hrs.
Content and laboratory practice in construction of projected and non-projected instructional materials such as slides, films transparencies, dry mounting, lettering, and displays. Designed to acquaint school personnel with the role of educational media in teaching and learning. Prerequisite: 24:031, 24:131 or equivalent.

## 24:140(g). Instructional Communications Systems -2 hrs .

Motivation, perception, and learning theory in the communication and learning processes, and the contribution of audio-visual communications and materials in teaching situations.
24:145(g). Film History- $\mathbf{3}$ hrs.
Historical growth of the motion picture medium, and the evolution of its role as a media of mass communication.
24:147(g). Photography -2 hrs.
Basic principles, skills, and techniques of still photography and their application to communication. Lab. included.
24:149(g). Communication Theory in Media-2 hrs.
Contemporary theory of human and mass communication, learning, perception, and propaganda as they apply to message design utilizing communication media.
24:150(g). Instructional Television Production-2 hrs.
Techniques of instructional television production as applied in the classroom and the studio. Practical experience in planning and producing instructional television programs.
24:151(g). Fundamentals of Motion Picture Production- 2 hrs.
Production and planning, visual continuity,
shooting, animation, editing, sound recording, titling, and other technical problems of production as applied to individual student films.

## 24:152(g). Advanced Motion Picture Production -2 hrs.

Techniques of 16 mm . instructional sound motion pictures applied to group projects; technical problems of production. Prerequisite: 24:151.

## 24:155(g). Audio Production-2 hrs.

Fundamentals of audio production including production planning, budgeting, selecting equipment, recording, editing, mixing, dubbing. duplicating, and other technical problems of production

24:160. Media Projects-1-4 hrs.
Specialized study in independent media projects. Credit to be determined at time of registration; project, credit, and evaluation criteria require advance approval of instructor.
Sec. 1. Television. Prerequisite: 24:150.
Sec. 2. Graphics. Prerequisites: 24:031 or
24:131; 24:137.
Sec. 3. Film. Prerequisites: 24:151; 24:152.
Sec. 4. Photography. Prerequisite: 24:137.
Sec. 5. Multi-Media Communications.
Prerequisites: 24:031 or $24: 131 ; 24: 137$.
May be repeated for credit to a maximum of 4 hours for any section.

## 24:186. Studies in Media-1-4 hrs.

24:189. Readings in Media-1-3 hrs.
24:205. Programmed Instruction- $\mathbf{3}$ hrs.
Evaluation, selection and utilization of programmed materials and machines; research and coristruction of programmed materials. Useful for educational media directors and administrators.
24:232. Selection and Integration of Materials- $\mathbf{3}$ hrs.
Individual experiences providing an overview of curricular resource materials.
24:240. Instructional Development- $\mathbf{2}$ hrs.
Analysis and synthesis for structuring learning environments including learner, task, environmenal, and instructional strategy analysis.
24:260. Advanced Media Projects-1-4 hrs.
Credit to be determined at time of registration; project, credit, and evaluation of criteria require advance approval of instructor.
Sec. 1. Television. Prerequisite: 24:150.
Sec. 2. Grapics. Prerequisites: 24:031 or
24:131: 24:137.
Sec. 3. Film. Prerequisites: 24:151; 24:i52.
Sec. 4. Photography. Prerequisite: 24:137.
Sec. 5. Multi-Media Communications.
Prerequisites: 24:031 or 24:131; 24:137.
May be repeated for credit to a maximum of 4 hrs for any section.
24:285. Readings in Media-1-3 hrs.
24:286. Studies in Media-1-4 hrs.
24:289. Seminar-2 hrs.
24:297. Practicum-2-3 hrs.
24:299. Research.


## Safety Education

## SAFETY EDUCATION MAJOR-TEACHING

Required: 20:116; 20:138; 24:131; 30:030; 30:130; 30:131; 30:132 or 30:135; $30: 140$ or $30: 137 ; 30: 192 ; 33: 105 ; 37: 010$

28 hours
This major must be accompanied by a second teaching major or a teaching minor.

## SAFETY EDUCATION MINOR-Teaching

Required: 20:138; 30:030; 30:130; 30:131; 30:132 or $30: 135$;
30:140 or 30:137; 33:105
19 hours
Highly recommended: 20:116; 30:192.
Approval to teach driver education will be recommended on the basis of completion of $30: 030,30: 130$, and $30: 131$.

30:030. Principles of Safety Education- 4 hrs. Methods and materials of teaching safety education in elementary and secondary schools.
$\mathbf{3 0 : 1 3 0 ( g ) . ~ D r i v e r ~ a n d ~ T r a f f i c ~ S a f e t y ~ I - 3 ~ h r s . ~}$
Classroom and practice driving units; safety education as a social problem; development of safety skills, habits, attitudes, and ideals; accident causes; study of research.
30:131(g). Driver and Traffic Safety II- $\mathbf{3}$ hrs.
Deals with classroom and in-the-car techniques of imparting instruction to high school students taking driver education.
30:132(g). Directing the Safety Program-2 hrs.
Organization and administration of safety programs through the entire school system.
30:135(g). Teaching Driver Education for the Handicapped- $\mathbf{2}$ hrs.
Methods and techniques in teaching the handi-
capped to drive. Prerequisites: 30:130; 30:131.
30:137(g). Teaching Motorcycle and Recreational Vehicle Safety- 3 hrs.
Fundamental knowledge and skill development to assist participants in becoming safe vehicle operators, and equipping them to develop and teach such safety education programs in their respective schools.
$\mathbf{3 0 : 1 4 0}(\mathrm{g})$. Traffic Law Enforcement- $\mathbf{3}$ hrs.
Designed to acquaint safety and driver education teachers with the purposes of traffic law enforcement and traffic engineering.
30:192(g). Experience in Safety Education-2-4 hrs.
Offered in various specialized fields; may be repeated once for credit in a different area. Maximum of 8 hours credit (only 2 hours may be applied to major requirement).


Dean Howard T. Knutson

# Educational Psychology and Foundations 

Froyen, Head. Ball, Baty, Berg, Bishop, L. Brown, Carr, Dedrick, Dreier, Dunbar, Erickson, Fortgang, Gable, Hash, Hoobler, Lattin, *Lee, Porter, Przychodzin, Reppas, Rhum, Rogers, Rozendaal, Rutkowski, Scott, J. Smith, Stansbury, Taylor, Trout, B. Wilson.
*on leave

## EDUCATIONAL PSYCHOLOGY

20:014. The Teacher and the Child- $\mathbf{5}$ hrs.
Appraisal of the teaching profession; introduction to the field of teaching; psychology of child growth and development from birth through young adult age level.

## 20:016. Psychology of Learning- $\mathbf{5}$ hrs.

Exploration of teaching strategies for learning and significant change in students. Prerequisite: 20:014.
The following five courses are a part of the Common Professional Sequence and should be taken according to the pattern on page 68.
Field Experience:
20:017. Interpersonal Interaction Patterns-1 hr.
Direct and indirect experiences focused on the dynamics of classroom groups. Must be taken on "ungraded" (Credit/No Credit) basis.

## 20:018. Teacher as Change Agent-1 hr.

Identification of institutional mechanisms for instituting change in classroom organization and/or curricular departure which require collaboration of teacher with colleagues and interpretation to parents. Students work in teacher-involved experience. Must be taken on "ungraded" (Credit/No Credit) basis.

## Value Clarification Seminar:

20:020. Interpersonal Influence Preferences- $\mathbf{2}$ hrs. Consideration of the use of authority and power in classroom management/guidance functions. Emphasis upon leadership styles as an interaction of personal needs and varied interpretations of authority and power. Must be taken on "ungraded" (Credit/No Credit) basis.

## Developmental Psychology Core:

20:030. Dynamics of Human Development-2 hrs.
Introduction to behavorial characteristics of individual development; basic developmental principles, age-stage characteristics; and provisions community, family, and school make in the development of children and youth.

## Learning and Instruction Core:

20:040. Nature and Conditions of Learning- $\mathbf{3}$ hrs. Cognitive, affective and psychomotor learning processes; including behavior, modification, concept learning, problem solving, creativity, attitude formation and skill learning. Corequisite: 25:050.

## 20:100(g). Child Psychology-2 hrs.

Factors influencing the child's behavior, attitudes, and understanding from standpoint of current psychological theory.
$20: 109(\mathrm{~g})$. Development of Young Children- $\mathbf{- 3}$ hrs.
The growth and development of the young child with emphasis on research having important implications for the education of young children.

Growth attitudes, and concepts from age eleven to maturity.
20:118(g). Mental Hygiene- 2 hrs.
Introduction to the study, evaluation, and improvement of personal adjustment and mental health.
20:138(g). Psychology of Accident Prevention- 2 hrs . A foundation for psychological understanding in the field of accident prevention and behavioral problems.
20:139(g). Psychology of Personality, Education
-3 hrs .
A thorough investigation of the dynamics of personality, with emphasis on the principles of normal personality structure. Designed for those who seek an understanding of the structure, development and function of personality.
20:140(g). Social Psychology, Education- $\mathbf{3}$ hrs.
An intenstive study of the behavior of man as affected by, and when interacting in, groups. Areas of discussion include prejudice, propaganda, antiintellectualism, leadership, social perception, group dynamics, game theory, and student protest.
20:142(g). Abnormal Psychology, Education- 3 hrs. This course deals with psychodynamics. The development of both normal and abnormal personalities is traced with an emphasis on application of sound developmental principles. 20:118 recommended to precede.
20:180. Field Experiences: Urban Education- 2 hrs.
Tutorial experience in multicultural school setting. Collateral seminar for sharing personal insights and discussion of core readings on cultural pluralism.
20:187(g). Educating Disadvantaged Children and Youth- $\mathbf{3}$ hrs.
Definition and extent of cultural deprivation in the United States. Sociological and psychological factors that interfere with the intellectual development
of the disadvantaged child. Programs designed to provide experiences essential for intellectual growth.
$20: 189(\mathrm{~g})$. Seminar in Educational Psychology-1 hr. Provides the opportunity of correlating previous course work and knowledge in the field of educational psychology. For senior psychology majors and minors. Must be taken twice, one semester hour each during the senior year. May be taken by graduate students with permission of the department. (May be repeated once for credit.)
20:191(g). Supervision of Student Teaching- $\mathbf{3}$ hrs. Designed primarily for those presently or potentially involved in the supervision of student teachers. Covers the selection and preparation of student teachers; readiness for student teaching; principles of supervision, including the identification and analysis of good classroom procedures desirable experiences for the student teacher in the total school program; professional responsibilities of the student teacher in the school and community; evaluation of student teachers, and the supervising teacher's role in the selection of teachers for the profession. It also covers the selection and preparation of student teaching centers, qualifications of supervising teachrs and the role of the coordinator of student teaching.

## 20:193(g). Research Experience in Educational

 Psychology- $\mathbf{2}$ to 6 hrs.Research participation, and/or independent supervised research including experience in each of the following: Search of the literature; analysis of theoretical issues; design, instrumentation, and conduct of one or two major experiments; analysis of results; and preparation of research reports. Prerequisite: 15 hours in educational psychology or in some other field of psychology and permission of the department. A total of six semester hours of credit may be allowed.

## 20:194(g). Clinical Experience- $1-4$ hrs.

Practice in educational testing, mental testing, interviewing, guidance and counseling, remedial educational procedures; and formulation of fol-low-up procedures. Prerequisite: department approval.
20:198. Independent Study.
See pp. 57 and 75.
20:214. Advanced Educational Psychology-2 hrs.
Application of selected psychologial models as alternative solutions to educational problems.
20.230 . Theories of Personality -3 hrs .
Critical

Critical examination of the nature of personality theory, and a detailed analysis of the major contemporary theories of personality.

## 20:240. Introduction to School Psychology- 2 hrs.

Nature of the psychological services in the schools; observation of classrooms and activities of various special services personnel. Includes literature of roles and goals of the school psychologist.

20:270. Psychology of Learning Disabilities- $\mathbf{3}$ hrs. Exploration of learning models, integrated with critical review and use of diagnostic test instruments. Development of interpretative skills and adaptations of teacher methods through case study data and clinic experience. Prerequisite: 25:181.
20:273. Behavior Disorders in Children- $\mathbf{3}$ hrs.
Problems of children who deviate from the norm in behavior and adjustment, including deviatons which are organic as well as those which are functional in nature. Observations of clincial procedures.
20:285. Readings.
20:289. Seminar in Education and Psychology-2 hrs. Prerequisite: instructor's consent.
20:290. Practicum in Education and Psychology -2-4 hrs.
Prerequisite: instructor's consent.
20:291. Internship in School Psychology-2-6 hrs.
Supervised off-campus field experience.
20:299. Research.

## TESTS, MEASUREMENT, AND RESEARCH

The following course is a part of the Common Professional Sequence and should be taken according to the pattern on page 68 .

## Measurement and Evaluation Core:

25:050. Classroom Evaluation Instruments- $\mathbf{2}$ hrs.
Preparation and use of objective and subjective assessment devices. Corequisite: 20:040.

## 25:180(g). Statistical Methods in Education and Psychology- 3 hrs.

Introduction to statistical methods. Includes graphing techniques, measures of central tendency and variability, correlation, $t$-tests, one way ANOVA, and chi-square. 2 hr . lab. arr.
25:181(g). Group Evaluation Techniques- $\mathbf{3}$ hrs.
Measurement and evaluation in the instructional programs of elementary and secondary schools. Utilization of standardized group instruments in measuring aptitude, intelligence, achievement, interest, and personality.

## $\mathbf{2 5 : 1 8 5}(\mathrm{g})$. Essentials of Measurement and Evaluation-2 hrs.

Principles of measurement and evaluation applied to the preparation and analysis of classroom appraisal devices. Provides teachers a basis for assessing individual differences, planning instruction and communicating educational outcomes. Designed for students with a minimum background in the foundations of measurement or teaching experience. No credit for student with credit in 25:050.
25:189(g). Seminar in Education- $2-3$ hrs.
25:280. Theory and Construction of Tests- $\mathbf{2}$ hrs.
An advanced course in the theory of test construction and practical application of the theory to actual construction and validation processes. Prerequisite: 25:180 and 25:181.

25:281. Topics in Statistical Analysis- $\mathbf{3}$ hrs.
Application of statistical principles to research in education and psychology. Topics selected from: correlational analysis; analysis of variance; sampling in education research; chi square, $t$, and $F$ distributions. Emphasis on statistical inference. Prerequisite: 25:180 or the equivalent.
25:282. Psychodynamics I-3 hrs.
Standarization, crossvalidation, administration, scoring, and elementary interpretation of: StanfordBinet Scale, Wechsler Preschool and Primary Scale, Wechster Intelligence Scale for Childen, Wechsler Adult Intelligence Scale.
25:283. Psychodynamics II-3 hrs.
Assessment of quantitative and qualitative potentialities of basic IQ tests (Stanford-Binet and Wechsler instruments), and use of projective instruments (House-Tree-Person test, TAT, CAT, Rorschach) to complement findings from conventional cognitive measures.
25:284. Psychodynamics III- $\mathbf{3}$ hrs.
Use of test studies to understand behavioral styles of individual students; includes interpreting tests and observational data in discussion with parents and school and community personnel.
25:285. Readings.
25:289. Seminar in Evaluation and Research.
25:294. Educational Research- $\mathbf{3}$ hrs.
Methods and evaluation of educational research. Individual exploration of a possible thesis or research project in cooperation with student's adviser or director of the study.
25:299. Research.

## SOCIAL FOUNDATIONS

The following two courses are a part of the Common Professional Sequence and should be taken according to the pattern on page 68.
Socio-Cultural Core:
26:020. Educational Purposes and Practices-2 hrs.
Critical analysis of educational problems and issues, potential solutions; the examination of contemporary positions on education purpose and form. Must be taken during the same semester as 26:030.
26:030. The Community and the Curriculum- $\mathbf{2}$ hrs. Socio-political forces which shape school policy and curriculum. Must be taken during the same semester as 26:020. Prerequisite: 26:020.

## 26:118. Social Foundations of Education-4 hrs.

The school as a social institution; organized and informal community controls; current philosophies of education; the history of education; teacher responsibilities for the curriculum and professional ethics. Prerequisite: 20:014. To accompany student teaching.
26:120(g). Sociology of Education- $\mathbf{3} \mathbf{~ h r s . ~}$ Examination of the sociology of classroom learning; and the role of schooling in social stratification and social mobility.

26:134(g). History of Education- $\mathbf{3} \mathbf{h r s}$.
Education as a formal institution; emphasis on the historical antecedents which have affected education in Western Culture and America.
$\mathbf{2 6 : 1 3 5 ( g )}$. Critics of Education- $\mathbf{3}$ hrs.
Criticism of American schooling developed since the 1950 's; social implications of various movements to reform the schools, establish alternatives to schools, and to deschool society.
26:138(g). Comparative Education- $\mathbf{3} \mathbf{~ h r s . ~}$
A panoramic view of the educational system of various nations of the world compared with the education of the United States of America.
$\mathbf{2 6 : 1 4 0}(\mathrm{g})$. Alternatives in Public Education- $\mathbf{3} \mathbf{h r s}$. Alternatives to conventional schooling currently in existence within the framework of public education nature, purposes, goals, and accomplishments of various alternatives, and evaluation of the alternatives.
26:189(g). Seminar in Social Foundations- $2-3$ hrs.
26:234. Philosophy of Education-2 hrs.
Analytical study of major philosophical viewpoint of modern education, emphasis on professio problems of education and the development educational principles.
26:299. Research.

## Library Science

E. Martin, Head. Hiland, Hodges, McGrew.

LIBRARY SCIENCE MINOR-Teaching
Required: $35: 110 ; 35: 113 ; 35: 115 ; 35: 118 ; 35: 121 ; 35: 132$ or $35: 134$; 24:131 22 hours

## LIBRARY SCIENCE-Teaching Endorsement

Students who already hold a valid lowa certificate may earn an Endorsement in Library Science for Teacher Certification in Iowa without completing either a graduate or undergraduate major in Library Science upon the successful completion of the following courses: (This may be a combination of graduate and undergraduate credit.)

Required: 35:110; 35:113; 35:115; 35:118; 35:121;
35:225; 24:131 .............................................................................. 21 hours
Required: 35:132 or $35: 134$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 hours
Electives in Library Science or Educational Media 5 hours
30 hours

35:010. Library Orientation-1 hr.
Practical working knowledge of the library and its resources.
$35: 110(\mathrm{~g})$. Introduction to Librarianship-2 hrs. Survey of history and development of libraries, administration and services of all types of libraries, library professional organizations and literature of librarianship.
35:113(g). Media Selection- $\mathbf{3}$ hrs.
Selection of many types of media, based on fundamental principles and objectives. Development of skill in using reliable selection aids and evaluating materials.
35:115(g). Cataloging and Classification- $\mathbf{3}$ hrs. 35:118(g). Reference- $\mathbf{3} \mathbf{~ h r s . ~}$
Study of basic reference sources, including introduction to question-negotiation and searching strategies and to reference services.
$\mathbf{3 5 : 1 2 1}(\mathrm{g})$. Introduction to the Instructional Materials Center-4 hrs.
An examination of what constitutes the services and program of the instructional materials center.
35:132(g). Library Materials for Children- 4 hrs.
Survey of school media with attention to selection principles, evaluation criteria, and utilization of book and non-book media for the elementary school curriculum.
35:134(g). High School Library Materials- $\mathbf{4}$ hrs. Selection and evaluation of curricular-related materiais for secondary school student's reading. viewing and listening interests, habits, and needs.
$\mathbf{3 5 : 1 9 0}(\mathrm{g})$. Teaching the Use of Libraries- $\mathbf{3}$ hrs.
Credit also as a course in education for a student whose major is library science. Methods course for library science majors and minors.
35:223. School Media Services- $\mathbf{3}$ hrs.
Survey of services available in an instructional materials center, and techniques used in interpreting
services to students and teachers.

## 35:225. Administration of the Instructional Materials Center-3 hrs.

Special problems in organization and administration of instructional materials centers. Prerequisite: $35: 113 ; 35: 121$; and at least one other library science course.
35:234. History of Books- $\mathbf{2}$ hrs.
Development of the book in various forms. History of the alphabet and writing; early writing materials; development of printing; and book publishing.
35:235. Imaginative Materials- $\mathbf{3}$ hrs.
Survey of novels, short stories, poetry and drama in a variety of formats to support the secondary school curriculum.
35:236. History of Children's Literature- $\mathbf{3}$ hrs.
Traces development of literature for children. Emphasis on significant authors, illustrators, and titles. Prerequisite: 35:132 or consent of instructor.
35:285. Individualized Readings- $\mathbf{1 - 3} \mathbf{~ h r s .}$
Directed study of specific issue or problem based on student's need or aspirations. Prerequisite: consent of department head.
35:289. Seminar in Librarianship- $\mathbf{2 - 3}$ hrs.
Critical assessment of the elements of school library service at the building and system levels. Prerequisite: 35:225 or consent of instructor.
35:290. Practicum in School Librarianship

## $-1-4 \mathrm{hrs}$.

Experience in the function and services of the instructional materials center. Prerequisite: consent of the department head.
35:295. Research in Library and Information Science-3 hrs.
Basic techniques of research methodology: historical, descriptive, and experimental; includes critical evaluation of library/media center studies and their influence on. or application to, services, organization, and administration.

## Physical Education

RECREATION MAJOR
This major is under the joint jurisdiction of the Departments of Physical Education for Menand Physical Education for Women.
Required: 37:010; 37:015 or 37:113; 37:060 or 39:080;37:031; 37:036; 37:037; 37:038; 37:132; 37:17517-18 hours
Required: 37:177; 37:188 ..... 16 hours
Electives: $10-15$ hours from one of the five areas of emphasis*
listed below; plus 5-10 additional hours from any of the remaining areas of emphasis ..... 20 hours
53-54 hours
*Emphases -
Administration**
Required: 37:178 ..... 3 hoursElectives from: 12:030; 13:040; 14:117; 15:050; 50:162;50:188; 92:117; 94:131; 94:132; 94:148 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 7-11 hours
10-14 hours
Urban Recreation**Electives from: 20:020; 20:030; 45:181; 68:130;96:122; 97:132; 98:110; 98:130; 99:01110-14 hours
Outdoor Recreation
Required: 39:131; 37:173 ..... 6 hoursElectives from: 82:122; 84:021; 84:022; 84:02384:103; 87:010; 87:021; 87:118; 97:0504-9 hours
10-15 hours
Program Supervision
In consultation with the adviser, the student must select one of the following six (6) areas of concentration:
Aquatics, Arts, Dance, Music, Sports, Theatre.
Required: a minimum total of $10-15$ hours in one area of concentration from a selected list of coursesTherapeutic RecreationRequired: 37:1343 hours
Electives from: 20:118; 20:142; 22:150; 22:187;
37:050 and $37: 151$ or $38: 150 ; 37: 152$; 37:153;$37: 157 ; 37: 182 ; 37: 156 ; 38: 155$ or $39: 039$7-12 hours10-15 hours

[^1]HEALTH EDUCATION MAJOR-TEACHINGThis major is under the joint jurisdiction of the Departments of Physical Education for Menand Physical Education for Women.Required: 37:010; 37:015; 31:037; 37:110; 37:113; 37:11537:117; 37:050 or $38: 150 ; 37: 114 ; 84: 033 ; 84: 138$28 hoursElectives as approved by the approriate department from a listin which two courses must be chosen from three statedcategories of selected electives, for a total of22 hours
50 hours
HEALTH EDUCATION MINOR-TeachingThis minor is under the joint jurisdiction of the Departments of Physical Education for Menand Physical Education for Women.Required: 20:118; 37:010; 37:015; 37:110 or 37:141;37:113; 37:115; 37:117 . . . . . . . . . . . . . . . . . . . .15 hours
Electives: 20:138; 30:030; 31:030; 37:114; 84:138; 98:105; 99:011 ..... 7 hours
22 hours

## HEALTH MINOR

This minor is under the joint jurisdiction of the Departments of Physical Education for Men and Physical Education for Women.

Required: 20:118; $31: 030$ or $31: 035$; 37:010; 37:015; 37:113;
84:138; 84:033 or $84: 151$
16-18 hours
Electives: 22:150; 98:105 or 31:152; 84:140; 99:011 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2-4 hours 20 hours
All students taking a PE activity course must wear the uniform or apparel which has been approved by the department.

37:001 or 37:003. Physical Education-1 hr.
Games, recreational games, beginning folk dance, intermediate folk dance, advanced folk dance, American country dance, modern dance.
37:010. First Aid and Personal Salety-2 hrs.
May be offered as (1) Standard First Aid for one credit, (2) Instructor's First Aid for one credit, or (3) may be offered as a combined course for two credits. American Red Cross certification for those who qualify.
37:011. Water Safety-1 hr.
Leads to American Red Cross Water Safety Instructor's certificate. Prerequisite: current Red Cross Life Saving certificate.
37:013. Physical Education for the Elementary
Grades-2 hrs.
No credit for a student with credit in 39:014 or 37:014. Teaching methods and experience in activities. 3 periods. Prerequisite: sophomore standing.
37:014. Activities in the Elementary School-2 hrs.
No credit for a student with credit in 37:013. Materials, methods, and participation. Discussion, 1 period; lab., 2 periods. Prerequisite: sophomore standing.

37:015. Personal Health-2 hrs.
Designed to develop the understandings, attitudes. and practices which contribute to better individual health.

37:018. Participation with Students- $1 \mathbf{h r}$.
Experiences working with elementary and/or secondary school students in activities involving physical movement. Prerequisite: departmental approval. May be repeated once for credit.

37:031. Recreational Leadership-2 hrs.
Principles and problems. Program materials.
37:036. Recreation for Special Populations-2 hrs.
Techniques of adapting recreation programs to meet the leisure needs of special populations in today's society. Corequisite for Recreation majors: 37:038.

## 37:037. Park and Recreation Administration in Contemporary Communities- $\mathbf{2}$ hrs.

Overview of the many facets of recreation; emphasis on roles of various state and national professional organizations in relation to the park and recreation movement. Corequisite for Recreation majors: 37:038.

## 37:038. Fieldwork in Recreation-1 hr.

Field experience to learn full role and meaning of recreational leadership. May be taken during the freshman year even though student has not yet earned 12 hours at UNI. May be repeated once for credit. Must be taken on "ungraded" (Credit/No Credit) basis. One hour corequisite for 37:037, and one hour corequisite for $37: 036$. Primarily for Recreation majors.
37:050. Anatomy- $\mathbf{3}$ hrs.
Gross anatomy of the osseous and muscular system; joint structure. Prerequisite: 84:024. No credit for a student with credit in 38:150.

37:060. Introduction to Health, Physical Education and Recreation- $\mathbf{2}$ hrs.
History, philosophy, trends, issues, and opportunities in health, physical education, and recreation professions.

## 37:110. Health Instruction in the Secondary School- $\mathbf{2}$ hrs.

Concepts of structure for an effective secondary program: learning process; development of instructional objectives; use of instructional aids; and pupil evaluation.

## 37:113(g). Community Health-2 hrs.

Historical background of community health problems; concepts of structure for effective community health program, and structure and function of local, state, and federal health departments.
37:114(g). Introduction to Public Health- $\mathbf{3}$ hrs.
Public health activities concerned with protection and care of the individual; focuses on factors that may be inimical to human beings. Prerequisite: 37:015.

## 37:115. Curricular Materials in Health Education

 -2 hrs.The evaluation, selection, and development of materials in school health as they relate to specific methods.
37:117(g). Administration of School Health- $\mathbf{3}$ hrs.
An overview of the school health program to acquaint the student with concepts, policies, and practices of administration necessary for organization and maintenance of healthful school living, health instruction, and health services in the school and tor the school and community to work together.
37:132. Recreation Program-2 hrs.
Development of school-community programs. Problems of leadership, facilities, and organization.
37:134(g). Therapeutic Recreation- $\mathbf{3} \mathbf{~ h r s}$.
Methods and techniques used in therapeutic recreational services to meet the leisure needs of members of special populations. Prerequisite: 37:132.
37:135. Activities in the Elementary School II- $\mathbf{3}$ hrs. Designed for the individual with special interest in elementary physical education. Program building and organization. Also concerned with activities and materials not included in 37:014. Prerequisite: 37:013 or 37:014.

## 37:141. Health Instruction in the Flementary School-2 hrs.

Consideration of concepts upon which an effective elementary program is structured. Identification of instructional techniques and materials and the function of the teacher in the elementary program. No credit for the person with credit in 37:110. Prerequisite: 37:015.

## 37:151(g). Kinesiology- $\mathbf{3}$ hrs.

Application of principles of mechanics to body movement. No credit for a student with credit in 38:150. Prerequisite: 37:050.
37:152:g. Adapted Physical Education- $\mathbf{3}$ hrs.
Recognition of postural deviations; individual and group screening techniques; exercises for specific body parts; understanding specific disabilities; and the modification of physical education activities to meet limitations found in school population. 4 periods. Prerequisites: 37:050; 37:151; 84:138.
37:153(g). Physiology of Exercise- 2 hrs.
Effects of exercise upon the organic functions of the body. Prerequisite: $37: 050 ; 37: 151$, or equivalen, and 84:138.
37:156(g). Physical Education and Recreation for the Handicapped- $\mathbf{3}$ hrs.
Role of physical education and recreation in the education of handicapped people. Problems in motor development related to these people, and techniques for working with them. Programs of activity and their organization. Laboratory experiences provided.
37:157(g). Instructors Course in Swimming for the Handicapped-1 hr.
Learning to teach swimming to handicapped children. May lead to Red Cross certification. Prerequisite: current Water Safety Instructor's certificate or approval of instructor.
37:172. Organization and Administration of Aquatic Programs- $\mathbf{2}$ hrs.
Administration of programs, personnel, and facilities; includes pool management and maintenance.
37:173. Camp Administration-3 hrs.
Techniques of site and program development, an organization and administration of agency, private church, school, and commercial camps which an utilized for outdoor recreational pursuits. Prerequisite: 39:131.
37:174. Testing in Physical Education-2 hrs.
Uses of testing and evaluation in the physical education program; written and performance tests and other evaluative instruments.
37:175. Basic Principles of Supervision-
Administration in Recreation-2 hrs.
Procedures of essential leadership preparation for the recreationist.
37:176. Organization and Administration of Physical Education-2 hrs.
School and community relationships; budget, supervisory problems. Administration of programs, facilities, curriculum problems.

37:177. Internship in Recreation- $\mathbf{1 4}$ hrs. Comprehensive fieldwork experience in area of student's concentration. Prerequisite: senior standing; corequisite: 37:188.
37:178(g). Administrative Practices in Community Recreation- $\mathbf{3}$ hrs. Techniques involved in directing and administering community recreation programs. Prerequisites: 37:132: 37:175.

37:181. History and Philosophy of Dance- 2 hrs. From primitive ritual to the art forms of the twentieth century.

## 37:182(g). Developmental Aspects of Movement Performance- 2 hrs.

How motor skills change with time; nature of factors effecting change; relationship of motor development to total human development; principles of motor development related to teaching motor skills.

## 37:183. History and Principles of Physical

 Education-2 hrs.Physical education in ancient and modern times. Principles basic to program development in elementary and secondary schools. No credit for person with credit in 37:190.
37:188. Seminar in Recreation-2 hrs.
Complements internship in regularly scheduled sessions throughout semester. Prerequisite: senior standing; corequisite: 37:177.
37:189(g). Readings in Physical Education-1-4 hrs. Individual study in an area of physical education. Credit to be determined at time of registration and to be based on student's proposal. Requires approval of department head.
37:198. Independent Study.

## 37:251. Advanced Kinesiology-3 hrs.

Analysis of motion with special emphasis upon application of mechanical and anatomical principles in the performance of physical activities. Relates laws of physics and develops principles from these laws that explain fundamental movements that are successful to various techniques. Prerequisite: 37:050 and 37:151, or 38:150.

37:253. Advanced Exercise Physiology-3 hrs.
Process of scientific inquiry into exercise physiology and the identification of basic principles to be applied for maximum performance without injury. Discussion, 2 periods; lab., 2 periods.

## 37:273. Physical Education in the Public Schools -3 hrs .

Principles, movements, leaders, trends, purposes, methods, and techniques of structuring the school program in physical education.

## 37:274. Measurement and Evaluation in Physical Education- $\mathbf{3}$ hrs.

Historical background of measurement in physical education; evaluation as a part of teaching; statistical techniques; construction and use of motor and knowledge tests; criteria for test selection; administering a testing program; interpretation and use of test results. Prerequisite: 25:180 or 80:172.
37:276. Supervision of Physical Education-2 hrs.
Analysis of current supervisory practices and problems of teaching in physical education. Prerequisite: 27:141.
37:280. Motor Learning- $\mathbf{3}$ hrs.
Study and application of research findings to motor learning and the variables which influence it.
37:289. Physical Education Seminar-1-3 hrs.
Special topics as indicated in the Schedule of Classes.
37:299. Research.


## Physical Education for Men

Thrall, Head. J. Anderson, Berry, Dutler, Erusha, E. Green, K. Green, R. Green, Henry, Hogeland, Jennett, R. Johnson, Kortemeyer, Patten, Remmert, Schwarzenbach, Sevy, Sheriff, Stiles, Stych.

A student who desires to coach either intramural or interscholastic athletics must be approved for certification. The minimum requirement is a minor in coaching, and the recommendation of the university.

All students are required to take from 2 to 4 hours of physical education activity. Not more than 4 hours of physical education activity credit will apply toward graduation requirements.

## PHYSICAL EDUCATION FOR MEN MAJOR-TEACHING

This major also requires the completion of a teaching minor.
Required: 37:014; 37:015; 37:060; 37:176; 38:115; 38:150;
38:190; 84:138 .................................................................... . 20 hours
Required: 38:020 (must select: two from Team Sports; two from
Individual and/or Dual Sports; two from Self-Testing Activities;
one from Aquatics; one from Combatives; one from Rhythms) 9 hours
Health Education elective from: $37: 110 ; 37: 113 ; 37: 115 ; 37: 117 \ldots . . . . . . . . . . . . . .2$ hours
Sports Theory electives: at least three of the following:
38:101; 38:102; 38:103; 38:104; 38:125; 38:108; 38:109............................ 6 hours
Physical education electives: at least 4 hours from each group ..................... 11 hours
Group I: 37:011; 37:031; 38:175; 38:114
Group II: 37:153; 37:156; 37:174; 38:155; 38:171; 38:172

## PHYSICAL EDUCATION AND HEALTH FOR MEN MAJOR-TEACHING

This major should also complete a minor for placement purposes.
Required: 37:014; 37:015; 37:060; 37:110 or 37:141; 37:176;
38:115; 38:150; 38:190; 84:138 ................................................. . . 22 hours
Required: 38:020 (must select: two from Team Sports; two from
Individual and/or Dual Sports; two from Self-Testing Activities;
one from Aquatics; one from Combatives; one from Rhythms) $\ldots \ldots \ldots \ldots . . .9$ hours
Health electives from: 20:118; 20:138; 31:030; 31:037; 37:010;
37:113; 37:115; 37:117; 37:141; 37:114; 84:033; 84:140 6 hours
Sports Theory electives: $38: 101 ; 38: 102 ; 38: 103 ; 38: 104 ;$
$\quad 38: 108 ; 38: 109 ; 38: 125$................................................. . . . . 6 hours
Physical Education electives: 37:153; 37:156; 37:174; 38:114;
38:116; 38:155; 38:171; 38:172; 38:175 .6 hours

## ATHLETIC TRAINING MINOR

Required: 31:035; 37:010; 37:015; 37:113; 38:115; 38:150;
38:116; 84:138 .................................................................... . 21 hours
Electives: 6 hours from $31: 055 ; 37: 152 ; 37: 153 ; 38: 155 ; 40: 155 \ldots \ldots \ldots \ldots \ldots \ldots . . . . . . . . . . . .$.

## COACHING MINOR-Teaching

This minor carries coaching endorsement for grades K-12. It does not qualify the student for endorsement or approval to teach physical education.

Required: 38:115; 38:150; 38:155; 38:175
10 hours
Electives: 6 hours from 38:108; 38:109; 38:101*; 38:102;
38:103; 38:104; 38:125
6 hours
Optional elective: ${ }^{*}$ selection of $38: 101$ requires addition of $\mathbf{3 8 : 0 2 0}$ (Football) 0-1 hour 16-17 hours

## COACHING ENDORSEMENT-Middle School/Junior High School Education Major*

The coaching endorsement is for K-12. However, it does not qualify the student for certification to teach physical education at any level. (*See Department of Curriculum and Instruction, p. 111, for full major program.)
OPTION I-
Required: (coaching theory) $38: 115 ; 38: 150 ; 38: 155 ; 38: 175$
10 hours
Electives: 9-10 hours from-*38:101; 38:102; 38:103;
38:104; 38:108; 38:109, 38:125
9-10 hours
Optional elective: *selection of $38: 101$ required addition
of 38:020 (Football) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 0-1 hour

20 hours

38:001. Physical Education- 1 hr .
Work in 38:001 is for General Education requirement and may be selected from a variety of activities as listed in the Schedule of Classes.
38:020. Fundamentals of Physical Activities-1 hr.
Development of fundamental skills and instructional techniques. May be repeated for a total of 9 hours of credit. Open only to Physical Education and Recreation majors and Coaching minor or endorsement.
38:101. Football Theory- $\mathbf{3}$ hrs.
Coaching philosophies and theories for the development of a football program. Prerequisite: 38:020 (Football).

## 38:102. Basketball Theory- $\mathbf{3} \mathbf{~ h r s}$.

Coaching philosophies and theories for developing a basketball program.
38:103. Baseball Theory- $\mathbf{2}$ hrs.
Fundamentals, individual position play, offensive and defensive team strategy, and management. 3 periods.
38:104. Track and Field Theory-2 hrs.
Rules and techniques in standard track events. Demonstration and coaching of each event required.
Meet management stressed. 3 periods.
38:108. Gymnastics Theory-2 hrs.
Coaching philosophies, techniques, theories, and the organization of a competitive gymnastics program. 3 periods.

## 38:109. Swimming Theory- $\mathbf{2}$ hrs.

Coaching philosophies, techniques, theories, and the organization of a competitive swimming program. 3 periods. Prerequisite: ability to swim.

38:114. Sports Officiating-2 hrs.
Rule interpretation and mechanics of officiating for football, basketball, and baseball. Discussion. 1 period; lab. 2 periods.

## 38:115(g). Care and Prevention of Athletic Injuries I-2 hrs.

Prevention, evaluation, first aid, supportive measures, and care of athletic injuries. Nutrition; facilities; and equipment. Prerequisite: $38: 150$ or equivalent.
38:116(g). Care and Prevention of Athletic Injuries II- $\mathbf{3}$ hrs.
Practical application; use of treatment modalities.
Prerequisite: 38:115 and instructor's approval.
38:125. Wrestling Theory-2 hrs.
Fundamentals, elementary and advanced skills, conditioning, strategy, and administration of wrestling. 3 periods.
38:150(g). Anatomy and Kinesiology- 3 hrs .
Attention to the skeleton, the muscular system, and to joint construction. Application to analysis of skills and techniques used in teaching physical education. No credit for a student with credit in both 37:050 and 37:151.
38:155(g). Conditioning Theory and Practice- $\mathbf{2}$ hrs.
Theory and practice in training and conditioning of athletes. 2 periods.
$\mathbf{3 8 : 1 6 0 ( g )}$. Advanced Sports Theory-2 hrs.
Advanced methods courses on coaching concepts in specific sports: (1) baseball, (2) basketball, (3) football, (4) gymnastics, (5) swimming, (6) track, (7) wrestling. May be repeated for a maximum of six (6) hours of credit. Prerequisite: department head approval for undergraduates.

38:171(g). Curriculum of Physical Education-2 hrs. Reform movement in physical education; cycles, scope, design and construction, and evaluation of curriculum and curriculum development; current trends affecting physical education programs in the schools.
38:172. Group Leadership-1 hr.
Group leadership of different activities. Prerequisite, or corequisite: 37:190.
38:175(g). Organization of Administration of Competitive Sports- $\mathbf{3}$ hrs.
A study of the organization, administration, and management of interscholastic, intercollegiate, and intramural sports programs.

38:177(g). Psychological Aspects of Coaching- 2 hrs Positive approach to the psychology of coaching. Recommend coaching experience.
38:190. Methods and Principles of Physical
Education- $\mathbf{3}$ hrs.
Role of physical education in the public school; includes legal responsibilities of teaching, development of instructional objectives, pupil evaluation, and a micro-teaching experience in physical education.

## Physical Education for Women

Crawford, Acting Head. Cathey, Cooper, Darling, W. Green, Huddleston, Marsh, *McFee (head), Mertesdorf, Moon, Phillips, Straits, Swanson, D. Thompson, Weishaupt, Winsberg, Yager.

## *on leave

NOTE: All women students are required to take 39:001 and 39:002, though not to be taken concurrently. Two additional hours of credit in physical education activity (39:003) apply toward general education elective. Women students with a major or minor in physical education for women substitute required activity credit for 39:001 and 39:002.

## PHYSICAL EDUCATION FOR WOMEN MAJOR-TEACHING


Required activities: 39:021 through 39:034 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 13 hours
Electives and emphasis* . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5 hours
54 hours
*An emphasis is required on the major; however, a major declaring a minor which duplicates an emphasis area (physical education-elementary, dance, or coaching of women's sports) may substitute such a minor for an emphasis in the major.
It is recommended that the student declaring any of the following minors confer with an adviser in the Department of Physical Education for Women.

## PHYSICAL EDUCATION FOR WOMEN MINOR-Teaching

Required:39:191; 39:193; 37:183 .................................................... . . . 8 hours
Required: 39:021; 39:022; 39:023; 39:024; 39:027; 39:030; 39:032; 39:034 8 hours
Electives: 6 hours from: 37:010; 37:015; 37:110; 37:151; 37:152;
37:153; 37:156; 37:174; 37:176; 39:083 6 hours
PHYSICAL EDUCATION FOR WOMEN MINOR
Required activities: from 39:021 through 39:039 8-10 hours
Health and Safety from: 37:010; 37:011; 37:015; 37:113 ..... 2-4 hours
Required from 37:013; 37:050; 37:131; 37:132; 37:151; 37:181; 39:131; 39:194; 84:138 ..... 8-10 hours22 hours
PHYSICAL EDUCATION MINOR-Elementary Teaching
Required: 37:013 and 39:083; or 39:083 and 39:084 5-6 hours
Reqquired: 37:018; 37:182; 39:125 ..... 5 hours
Required: activity courses to be chosen in consultation with department 5 hours
Electives: 4 to 5 hours chosen from- $37: 010$ ( 1 hr . only);
37:156; 39:036; 50:130; 84:138 ..... 4-5 hours20 hours
Note: If student has taken 39:001 and/or 39:002 prior to declaring minor, then either or both will apply to activity elective hours on minor.
DANCE MINOR-Teaching and Liberal Arts
Required activities: 39:023; 39:027; 39:035; *39:037; *39:111 5 hours
Required: 37:181; 39:125; 39:193; 37:198; 50:053 12-13 hours
Electives: 4 or 5 hours from:
$50: 034 ; 50: 130$ or $\mathbf{6 2 : 0 7 0} ; 24: 131$ or $\mathbf{2 4 : 1 3 7} ; \mathbf{6 0 : 0 0 1}$ or $\mathbf{6 0 : 0 0 3}$ or $60: 095$ or $60: 141 ; 52: 020$ or $54: x x x$ (Applied Music) 4-5 hours22 hours
*Student may test out of these courses.
Required 37:198 must be relevant to dance minor.
COACHING OF WOMEN'S SPORTS MINOR-Teaching
Required: 37:050; 37:151; 37:153; 39:143; 39:145 13 hours
Required: 2-3 hours from 39:036 ..... 2-3 hours
Required: 4-6 hours from 39:140 ..... 4-6 hours
19-20 hours
Note: This minor will carry departmental recommendations for endorsement in coaching 7-12. It does not qualify the student to teach physical education at any educational level.

## COACHING ENDORSEMENT—Middle School/Junior High School Education Major*

The coaching endorsement is for $\mathrm{K}-12$. However, it does not qualify the student for certification to teach physical education at any level. (*See Department of Curriculum and Instruction, p. 111, for full major program.)

## OPTION II

The student should have directed or supervised laboratory experience in coaching; ordinarily this would be done during the time of student teaching.
Required: 37:050; 37:151; 37:153; 39:143; 39:145 ..... 13 hours
Required: 2-3 hours from 39:036 ..... 2-3 hours
Required: 4-6 hours from 39:140 ..... 4-6 hours

## 39:001. Physical Education-1 hr.

3 class periods. An activity in conjunction with work in basic physical education concerned with total fitness, individual problems, daily living skills, and the values inherent in physical activity.

## 39:002. Physical Education-1 hr.

3 class periods. An activity in conjunction with work in basic physical education concerned with principles of movement and the development of awareness of the qualities involved in efficient movement.
39:003. Physical Education-1 hr.
2 class periods. Physical education activities (Some of these sections may be offered as 37:003.)
Following courses primarily for physical education majors, minors, subject fields. Beginning, intermediate, advanced activities:
39:021. Archery-Badminton-1 hr.
39:022. Basketball-Volleyball-1 hr.
39:023. Folk Dance-1 hr.
39:024. Golf-1 hr.
39:026. Hockey-1 hr.
39:027. Modern Dance-1 hr.
39:028. Movement Fundamentals-1 hr.
39:029. Soccer-Speedball-1 hr.
39:031. Swimming-1 hr.
39:032. Tennis-1 hr.
Following three courses primarily for majors and minors. Combination of activity fundamentals and organization of materials for teaching.
39:025. Gymnastics-1 hr.
39:030. Stunts-Tumbling-1 hr.
39:034. Track and Field-1 hr.
39:035. Advanced Modern Dance-Advanced Folk Dance-1 hr .
39:036. Otticiating and/or Assisting- 1 hr .
Primarily for majors, minors, subject field. May be repeated for a maximum of four hours credit.
39:037. Fundamentals of Rhythm-1 hr.
Basic experience within the structure of music and rhythmic response. For students with little experience in either area.

## 39:038. Advanced Swimming-Speed Swimming -1 hr .

39:039. Conditioning and Massage- 1 hr .
Primarily for majors, minors subject fields. Conditioning; prevention, recognition, care of athletic injuries; basic techniques of massage.
39:080. Introduction to Physical Education-1 hr.
An orientation to the professions and professional preparation programs in physical education, health, and recreation.
39:083. Movement Experiences for Children I-3 hrs. Elementary physical education methods, organization and management, safety concepts, fundamental movement concepts; elementary dance teaching and theory. 4 periods.

## 39:084. Movement Experiences for Children II

 -3 hrs .Educational gymnastics theory and progressions suitable for elementary children; theory and concept of teaching games to grades K-6, 4 periods. Prerequisite: 39:083.

39:111. Rhythmic Form and Analysis-1 hr. Planned to reinforce understandings of structure of rhythmic patterns in music and in movement. For individual with experience in both areas.

Following technique courses primarily for majors, minors, subject fields. Provide opportunities for improving personal skill and in-depth understanding of the sport as a student and prospective teacher.
39:113. Techniques: Aquatics-1 hr.
39:114. Techniques: Archery-Badminton-1 hr.
39:117. Techniques: Soccer-Speedball- $\mathbf{1 h r}$.
39:125(g). Educational Dance- 2 hrs.
Place of dance in the school curriculum; relationships, progressions, and curriculum building. Prerequisite: 39:193 or 39:083.
39:131. Camp Leadership- $\mathbf{3}$ hrs.
The camping movement. Leadership techniques and laboratory experience. Discussion, 2 periods; lab., 2 periods.
39:140. Advanced Skill and Coaching- 1 hr.
Development of a high level of performance and comprehensive understanding and knowledge pertinent to specific activities, such as: (1) Basketball; (2) Golf; (3) Gymnastics; (4) Field Hockey; (5) Softball; (6) Swimming; (7) Tennis; (8) Track and Field; (9) Volleyball. May be repeated for a total of 6 hours, but not in the same activity. Prerequisite: department head's approval. (A student with a minor in Coaching in Women's Sports may substitute 2 hours credit in $39: 140$ for the 2 hours of physical education activity credit required for graduation.)
39:143(g). Theoretical Concepts of Coaching- 2 hrs . Introductory philosophical aspects of sport, psychological and sociological dimensions of competitive sport experiences with a focus on women in sport.
39:145(g). Prevention and Rehabilitation of Women's Atheletic Injuries- 3 hrs.
Problems of preparing a participant for women's competition; protection from potential injury, etiology, examination and first aid care of injuries, and rehabilitation principles and practices, Prerequisite: 37:050 or approved equivalent.
39:191. Methods and Materials in Physical Education- $\mathbf{3}$ hrs.
Credit as a course in education for a student whose major is physical education. 4 periods. Prerequisite: $\mathbf{6}$ hours in sports activities. No credit for students with credit in 38:190.
39:193. Methods in Dance-3.hrs.
Methods and materials in the elementary and secondary school. 4 periods.

30:194. Teaching of Swimming and Aquatics- $\mathbf{2}$ hrs. Aquatics in educational and recreational programs dealing with instruction, management, and maintenance. Prerequisite: Lifesaving or approved equivalent. 3 periods.

# School Administration and Personnel Services 

D. Hanson, Head. Brimm, Frank, Hansmeier, Kimball, Knutson, Lembke, McCumsey, A. Smith, Thomson, Truesdell.

## SCHOOL ADMINISTRATION AND HIGHER EDNICATION.

27:102(g). Introduction to Educational
Administration-2 hrs.
Introduction to the administration of schools in the United States.
27:141(g). Instructional Leadership- $\mathbf{3}$ hrs.
Techniques for teacher improvement in the elementary and secondary schools. Before enrolling in this course the student should have had teaching experience.
27:151(g). Education and Law-2 hrs.
Introduction to school law; it's effect upon education, with recognition of educator's responsibilities to total community. Primarily for nonadministrators.
27:198. Independent Study.
27:203. Leadership in Educational Organizations -2 hrs.
Analysis of roles, and form and manner in which these roles are effectively performed. Prerequisite: 27:102.
27:204. School and Community Relations- $\mathbf{3}$ hrs.
27:210. School Personnel Administration- $\mathbf{3}$ hrs.
Teacher selection and placement, promotion, tenure, and retirement; administration of pupil personnel facilitating services. Prerequisite: 27:102.
27:212. Supervision of the Elementary School-2 hrs.
27:220. Curriculum Development in the Elementary School- 3 hrs.
27:221. Administration of the Elementary School -3 hrs .
Prerequisite: one year of teaching experience and departmental approval. Should have had 27:102 and course work in elementary education.
27:226. Supervision of the Secondary School-2 hrs.
27:227. Curriculum Development in the Secondary School- $\mathbf{3}$ hrs.
27:228. Administration of the Secondary School -3 hrs .
Prerequisite: one year of teaching experience and departmental approval. Should have had 27:102.

27:230. School Laws-2 hrs.
Legal structure for education; powers and duties of boards of education; rights and responsibilities of school personnel; rights of parents and students; and related topics. Emphasis on judicial decisions and common law with practical application for school personnel.
27:240. School Finance- $\mathbf{3}$ hrs.
Financial support for education, business administration, and budgeting. Prerequisite: 27:102.
27:241. School Buildings and Sites- $\mathbf{2 ~ h r s . ~}$
Problems of school building planning, operation, and maintenance. Prerequisite: 27:102.
27:242. Decision Making- $\mathbf{2}$ hrs.
Environmental and personnel factors influencing decision making; specific emphasis on the process, competencies and consequences. Prerequisite: 27:102
27:243. School Business Management-2 hrs. Prerequisite: 27:240
27:250. Teaching in College- $\mathbf{3}$ hrs.
Methods and materials of college teaching to help the college instructor become a better teacher. Useful to junior and senior college personnel.
27:252. Current Issues in Higher Education- $\mathbf{3}$ hrs. A seminar-type course organized around the major issues confronting vocational-technical schools, community colleges, senior colleges, and universities in comtemporary society.
27:260. History and Philosophy of Higher
Education- $\mathbf{3}$ hrs.
Overview of the historical development, issues, philosophies, and cultural backgrounds of higher education in America.
27:285. Readings in School Administration.
27:289. Seminar in Education-2 hrs.
Seminars are offered on special topics as indicated in the schedule of classes.
27:290. Practicum in Education-2-4 hrs.
27:299. Research.

## STUDENT PERSONNEL SERVICES

## 29:102(g). Introduction to Secondary School Guidance- 3 hrs.

## 29:104(g). Introduction to Elementary School Guidance- 3 hrs.

29:110(g). Information Services in Guidance- $\mathbf{3} \mathbf{h r s}$.
Orientation of guidance workers to the needs of junior and senior high school students in investigating educational and occupational possibilities; the organization of occupational ideas and materials.
29:121(g). Human Relations Training- $\mathbf{3}$ hrs.
Introduction to concept of human interaction through "interpersonal recall process." Emphasis on student experiencing desired human interaction skills.
29:124(g). Applied Group Dynamics- 3 hrs .
Principles of group dynamics applied in the instructional setting.
29:126(g). Humanistic Consultation-2 hrs.
Stresses principles, procedures, and process of consultation roles. Consultation content provided through integration of affective education programs and skills into learning process.

## 29:198. Independent Study.

29:203. Analysis of the Individual- $\mathbf{3}$ hrs.
Prerequisite: 25:180; and 29:102 or 25:181.
29:205. Techniques of Counseling- 3 hrs. Prerequisite: 29:102 or instructor's permission.
29:207. Counseling Techniques with Children- $\mathbf{3}$ hrs. This course will emphasize the specialized counseling and guidance approaches applicable to the elementary school child. The course will place prime emphasis on individual counseling of the elementary school child through the use of play media and verbal techniques. The course involves classroom lectures, assigned readings, classroom discussion and actual counseling experience under supervision. Prerequisite: 29:102 or 29:104 or permission of the instructor.
29:210. Management Systems in Guidance- $\mathbf{2}$ hrs. Individual behavior and systems change in the organizational and administrative components in guidance. Prerequisite: one year of teaching experience and departmental approval.
29:220. Group Process- $\mathbf{3}$ hrs.
Emphasis on direct participation in groups to develop skills in guidance and counseling. Prerequisite: 29:205 or 29:207.
29:225. Facilitating Career Development- $\mathbf{2}$ hrs.
Exploration of foundation of career development theory. Emphasis on significance of occupational preference and choice. Sociological, psychological, and economic determinants of choice examined; and awareness of theoretical concepts of career choice stressed. Prerequisite: 29:102 or 29:104, and 29:110 or permission of instructor.

29:227. Counseling Theory and Methodology-3 hrs. Theoretical approaches to counseling. Function and present status of counseling theory. A study of each of the predominant theories. Prerequisite: 29:207 or 29:205.

## 29:230. Student Personnel Programs in Higher Education- 3 hrs.

An introduction to the field of college student personnel services with applications of theory to practice.
29:235. Supervision of Counseling Services -2 hrs.
Didactic instruction in the methods and techniques of counselor supervision. Approximately one-fourth of the course will be devoted to supervisory experience in the laboratory and in a regular school situation.
29:252. Relationship and Marriage Counseling -3 hrs .
Stresses establishing and maintaining effective relations within marriage, with attention to communication and additudinal barriers. Recognition of alternative styles. Prerequisite: 29:205 or 29:207 or 29:227 or equivalent.
29:285. Readings in Guidance and Counseling.
29:289. Seminar Student Personnel Services -2 hrs.
Special topics as indicated in the schedule of classes.
29:290. Practicum in Student Personnel Services -3 hrs .
Prerequisite: 29:205 or 29:207.
29:299. Research.

## Teaching

R. Nielsen, Head. Ahrabi-Fard, Albrecht, Aldrich, F.R. Anderson, Andrews, Aurand, Bebb, J. Becker, Beckman, Betterton, L. Brown, K. Butzier, M. Butzier, Charais, Christensen, J. Clausen, Darrow, J. Diamond, Doerzman, *Jerry Duea, Joan Duea, Ewald, Findlay, Finkelstein, Finsand, Fitzgerald, Fratianni, Geadelmann, Gohman, Hale, Hantula, Harper, Hawkes, Hawn, Homby, Immerzeel, Jackson, R.H. Johnson, Jorgensen, Kelly, Kettner, Kuehl, Lewis, Lynch, Maricle, Mazula, McCracken, McIntyre, Middleton, Moore, Musel, P. Nelson, L. Nielsen, Ockenga, Parisho, Paulson, Phillips, A. Potter, L. Potter, Price, Pries, Primrose, Riechmann, Roberson, Roth, Schmitt, Schools, Schwandt, Scuvel, Silverson, Soy, Stahlhut, E. Strub, R. Strub, Tarr, Teig, Thomas, Tock, Vander Beek, Vargas, A. Vernon, Welch, Wengert, Westphal, Wiederanders, K. Williams, L. Williams, Wineke, Wolfe, Yoder.

## *on leave

Completion of the present undergraduate teaching curriculum requires a minimum of 8 semester hours of credit in student teaching. Student teaching credit earned in other colleges or universities does not meet the student teaching requirements of the University of Northern Iowa. A student who has completed 3 semester hours or more in student teaching in another college or university in the same area as his major at the University of Northern Iowa will be held for at least 4 semester hours of student teaching at this university. A student who completed either the old two-year curriculum or the two-year plan and desires to fulfill the teaching program requirements for a bachelor's degree is required to complete additonal student teaching only if he majors in an area other than early childhood, lower, or upper elementary teaching.

Any teacher education major may seek approval to complete additional student teaching beyond the minimum eight (8) hours credit required for graduation. Students may apply up to sixteen (16) hours of student teaching credit toward the 130 -hour minimum required for graduation. Approval of the Committee on Teacher Education Standards and Practices and the Department of Teaching is required of each student seeking permission to fulfill the student teaching requirement.

Undergraduates normally fulfill their student teaching requirements during their senior year although some juniors may be recommended for assignment.

Student teaching generally is offered in blocks of 8,12 , or 16 credit hours. The student who registers for 12 credit hours of student teaching must complete 8 hours of student teaching on a full-time basis and the additional 4 hours of credit on a full-time basis for a minimum of 4 weeks or on a half-time basis for a half-semester. The student who registers for 16 credit hours of student teaching must complete a semester of student teaching on a full-time basis.

A student with a double major is urged to do some student teaching in both majors. Elementary majors who wish to major also in a subject for teaching at the secondary level are required to complete 8 hours of elementary student teaching followed by 4 hours in their secondary major. A secondary double major (i.e.,science and mathematics, etc.) is urged to complete some student teaching in both majors during the required student teaching period. Special area majors (i.e., music, physical education, etc.) receive K-12 certification and must complete 8 hours in the special subject area with some student teaching experience at both elementary and secondary school levels. In the case of a double major, one being a special area, at least four (4) additional hours in the other major are strongly recommended.

Majors in both Safety Education and Religion must complete a teaching minor and are urged to do some student teaching in the minor in conjunction with the major student teaching assignment.

The primary purpose of student teaching is to provide the student opportunity to investigate in depth the full role and meaning of teaching in a real school setting. Specific emphasis is given to
(1) the analysis of teaching and learning (2) establishing the pre-conditions of learning, (3) the organization of instructional content, (4) adapting methods and techniques to organization and content, (5) the logical process of teaching, and (6) principles of self-evaluation. This broad pattem of experiences, provided in either the campus laboratory school or off-campus affiliated schools, includes planning and organizing for instruction, developing classroom teaching competencies and skills, evaluating pupil progress, participating in extra-class activities, working with special school personnel, and utilizing school and community resources in the instructional program.

The optional full-semester student teaching experience ( 16 credit hours) will focus upon providing greater depth and breadth of experiences. It will be designed to meet the needs and interests of the student, and to provide a broader understanding of the school in contempon society.

The scholarship average required before a student is permitted to register for student teaching is specified on p. 68 and is the same as that required for graduation (see p. 44). A student must also have been approved on a teacher-education program and must file application for student teaching no less than three months prior to the beginning of the semester in which the work is to be taken. Pertinent announcements are made through the university newspaper and bulletin board.

28:132. Early Childhood Teaching. Prerequisite: 20:014 and 20:016, 21:101.
28:134. Lower Elementary Teaching
Prerequisite: 20:014 and 20:016; 21:101.
28:135. Special Education Teaching.
Limited to those who are approved for special education. Prerequisite: 20:014 and 20:016; 21:101.
28:136. Upper Elementary Teaching.
Prerequisite: 20:014 and 20:016; $21: 101$.
28:137. Middle School/Junior High School Teaching.
Student should have completed the special methods course in his subject field before student teaching. Prequisite: 20:014 and 20:016.

## 28:138. Secondary School Teaching.

Student should have completed the special methods course in his major field of preparation before student teaching. Prerequisite: 20:014 and 20:016.

## 28:139. Vocational-Technical Teaching.

Required to teach in area vocational schools and community colleges. Prerequisite: 20:014 and 20:016. Student should have completed special methods course in his major field.
28:140. Special Area Teaching (Art, Industrial Arts, Library Science, Librarian, Music, and Physical Education).
Required to teach in kindergarten and grades one through fourteen. Student should have completed special methods course in his major field. Prerequisite: 20:014 and 20:016.

28:150. Laboratory Practice-Elementary (*).
28:151. Laboratory Practice-Secondary (*).
${ }^{*}$ ) For experienced teachers (*elementary or ${ }^{*}$ condary, as appropriate) who have not fulfille the student teaching requirements for certification and to provide a depth in experience. Includes practice in modern teaching procedures, construction use of classroom instructional materials, analysis of the teaching-learning process, meeting needs of exceptional children, classroom supervision, and school-parent relations. Special seminar arranged. Departmental recommendation and approval required.
28:250. Advanced Laboratory Practice- $2-4$ hrs.
Student may concentrate on any aspect of the school program, such as curriculum, methods, evaluation, remedial instruction, guidance, sup, vision, administration, public school relatic educational media and audio-visual aids, and extraclass activities. May be repeated for a total of 4 hours. Approval of Head of the Department of Teaching required.

## College of Humanities and Fine Arts

The College of Humanities and Fine Arts is comprised of seven instructional depart-ments-Art, English Language and Literature, Foreign Languages, Music, Philosophy and Religion, Speech, and Speech Pathology and Audiology-and a non-instructional unit, Broadcasting Services.

The college offers programs leading to the Bachelor of Arts degree and to the Bachelor of Music degree. There are graduate programs leading to the Master of Arts degree in all departments except Philosophy and Religion.

Broadcasting Services maintains two FM-stereo radio stations: KUNI, which operates at 100,000 watts on 90.9 mhz . and serves the entire eastern section of Iowa with quality Public Radio programming, and KHKE operating at 8000 watts on 89.5 mhz . which serves the Waterloo-Cedar Falls metropolitan area and, through networking, the Cedar Rapids area with predominantly fine arts programming.

The college administers an Interdisciplinary Program in Film which includes representatives from several departments within the college as well as personnel from other divisions throughout the university. Although there is no film major at the present time, it is possible for a student to take film courses offered in the departments of Art, English Language and Literature, Foreign Languages, and Speech.

The college also offers an interdisciplinary major in Humanities and a major in Russian Area Studies, each leading to the Bachelor of Arts degree, and has a joint responsibility for the American Studies and the Latin American Studies majors. Students may elect baccalaureate programs with teaching emphasis as well as the standard, non-teaching emphasis in most departments of the college.

The College of Humanities and Fine Arts is dedicated to providing students who are majoring in its disciplines with the best professional training possible. The college also has a deep commitment to the concept of liberal education and attempts through appropriate general education and elective courses to provide students with a broad, educational experience. The college subscribes, also, to the belief that it has obligations to provide cultural opportunities and educational services to the metropolitan and regional areas in which it is located as well as to the university community of which it is a part.

Graduates from the College of Humanities and Fine Arts are prepared to participate in a number of diverse vocations and experience wide-ranging career opportunities. Some of the careers which are available to majors in the college are: journalism, communications media, professional careers in music, theater, clinical careers in speech pathology and audiology, translators through work in the department of Foreign Languages, careers in art galleries and museums, and many other possible combinations for work in the arts and humanities, as well as teaching. Departmental offices are excellent sources of information about career area opportunities.
ArtLash, Head. Behrens, J. Brown, Campbell, Carter, Chaney, Cobos, Delafield, Echeverria,Estabrook, Finegan, Gogel, Guillaume, Harris, Haupt, Henderson, Herrold, Holzaepfel, *Jen-nings, *Olds, Page, Shickman, Siddens, Streed.
*on leave
ART MAJOR-TEACHING
Required: 60:001; 60:003; 60:005; 60:095; 60:195 ..... 14 hours
Required: art history electives* ..... 8 hours
Required: at least four of the following: 60:018; $60: 032 ; 60: 034$; 60:037; 60:050; 60:055; 60:074 or 60:075; 60:080 ..... 12 hours
Electives in art** ..... 16 hours
50 hours
Note: 60:005 should be scheduled prior to studio courses. *60:040 highly recommended. **65:143 recommended for elective.60:001, 60:003, and 60:005 should be taken by art majors during the first year.60:195 and 28:140 may not be taken during the same semester.
Each student is required to demonstrate competence in art by his junior year.An art major may elect an emphasis in art history, ceramics, crafts, design, drawing, metalwork, painting, photography, printmaking, or sculpture. A minimum of 9 hours should be com-pleted in one area.
ART MAJOR-DESIGN
Required: 60:001; 60:003, 60:005 8 hours
Required: art history electives* ..... 8 hours
Required: 60:025; 60:026; 60:027; 60:125; **60:126 ..... 18 hours
Electives in art (excluding 60:095 and 60:195) ..... 16 hours50 hours
Note: 60:001, 60:003, and 60:005 should be taken by art majors during the first year. 60:001 and 60:003 must be scheduled prior to design courses; 60:005 may be taken at the same time as 60:025. *60:040 highly recommended. **60:126 must be taken twice for a total of six (6) semester hours.
Students are required to demonstrate competence in design by the junior year.
ART MAJOR
Required: 60:001; 60:003; 60:005 ..... 8 hours
Required: art history electives* ..... 8 hours
Required: at least one of the following: 60:018; 60:025; 60:032, 60:034, 60:080 ..... 3 hours
Required: at least one of the following: 60:037 60:050; 60:055; 60:074; 60:075 ..... 3 hours
Additional electives in art, excluding 60:021; 60:095; 60:195 ..... 15 hours
Note: 60:005 should be scheduled prior to studio courses. *60:040 highly recommended.
60:001, 60:003, and 60:005 should be taken by art majors during the first year.

An art major may select an emphasis in art history, ceramics, crafts, design, drawing, metalwork, painting, photography, printmaking, or sculpture. A minimum of 9 hours should be completed in one area.

Each student is required to demonstrate competence in art by his junior year.
ART MINOR-DESIGN
Required: 60:001; 60:003; 60:005 ..... 8 hours
Required: 60:025; 60:026; 60:027; 60:125 ..... 12 hours
20 hours
Note: 60:001 and 60:003 must be scheduled prior to design courses; 60:005 may be taken at the same time as 60:025.
ART MINOR
Required: 60:001, 60:003; 60:005 ..... 8 hours
Electives in art (excluding 60:021, 60:095, 60:195) ..... 12 hours

Note: 60:005 should be scheduled prior to studio courses. 20 hours 60:040 highly recommended for elective.

## 60:001. The Visual World- $\mathbf{3}$ hrs.

Introduction into the visual world, the world of art. Seeing, learning, doing with a team of teachers. Emphasis on the contemporary. 6 periods.

## 60:003. The Visual Arts: Current Trends- $\mathbf{2}$ hrs.

Concepts and modes of expression in contemporary art since 1945. Informal lecture with group project participation. 2 periods. Not for art history credit.
60:005. The Visual Process: Seeing Into Doing- $\mathbf{3}$ hrs. For art majors and minors only. Greater emphasis on individual search, process, change. 6 periods. Prerequisites: 60:001; 60:003.
60:018. Drawing- $\mathbf{3}$ hrs.
Emphasis on growth in perception of visual form. Range of materials and subject matter. 6 periods.
60:021. Exploring Art-3 hrs.
Experience with a variety of materials with implications for their adaption on the elementary school level, 6 periods. Prerequisite: 60:001.
60:025. Design I: Introduction to Design- $\mathbf{3} \mathbf{h r s}$.
Basic introduction to design ideas, methods, and tools of visual problem solving. 6 periods. Prerequisites: 60:001; 60:003. Prerequisite or corequisite: 60:005.
60:026. Design II: Problems in Two-Dimensional Design- $\mathbf{3}$ hrs.
Theoretical and practical problems and solutions peculiar to the two-dimensional surface. 6 periods. Prerequisite: 60:025.

## 60:027. Design III: Problems in Three-Dimensional Design- $\mathbf{3}$ hrs.

Theoretical and practical problems and solutions peculiar to the three-dimensional form/object. 6 periods. Prerequisite: 60:025.

## 60:032. Creative Photography- 3 hrs.

Heightening preceptual and conceptual awareness through the intermediacy of the camera and photosensitive emulsions. 6 periods.

60:034. Printmaking- $\mathbf{3}$ hrs.
Woodcuts, etchings, serigraphs, lithographs, and collographs. 6 periods.
60:037. Sculpture- $\mathbf{3}$ hrs.
Handling visual ideas and learning to interpret them directly: emphasis on sensitivity to possibilities of materials, awareness of processes involved in thinking visually, with a search for forms which best communicate this. 6 periods.
60:040. Survey of Art History-5 hrs.
An introduction to the History of Architecture, Painting, Sculpture and minor arts.
60:050. Ceramics- $\mathbf{3}$ hrs.
Ceramic materials, design, forming, glazing, and firing. 6 periods.
60:055. General Crafts- $\mathbf{3}$ hrs.
Work in a variety of craft areas with emphasis on design. Primarily for non-art majors. 6 periods.
60:056. Fibers- $\mathbf{3} \mathbf{h r s}$.
Applications of contemporary ideas to traditional skills with fiber materials; introduction to fiber and textile design, including weaving, knotting, batik, tie-dye, and stitchery.
60:057. Wood Design- 3 hrs.
Introduction to technical and aesthetic aspects of wood design; design problems in various uses of woods; wood combined with other materials.
60:060. Art-Film-3 hrs.
Introduction to film as a visual medium, an art object, an art event. Student to make short films with emphasis on visual ideas. Technique.
60:074. Jewelry and Metalwork-3 hrs.
Forming, joining, decorating, and combining precious and non-precious metals with other materials. 6 periods.
60:075. Metalsmithing-3 hrs.
Designing and forming metal objects by forging. 6 periods.

## 60:080. Painting- $\mathbf{3}$ hrs.

Experience in various painting media. 6 periods.

## 60:095. Philosophy and Materials of Art Education- 4 hrs.

Study of the philosophy, materials, and facilities of art education on the elementary and secondary school level. 6 periods plus 1 hour arranged. 3 hours will count as education.
60:111(g). Life Drawing- $\mathbf{3}$ hrs.
Drawing from the model using a variety of media. 6 periods.

* $60: 118(\mathrm{~g})$. Advanced Drawing- $\mathbf{1 - 5} \mathrm{hrs}$.

Credit to be determined at time of registration. May be repeated for credit.
60:125(g). Design IV: Advanced Problems in Design- $\mathbf{3}$ hrs.
Intensive application of design methods and skills. Major problems in pure design research, graphic design, product design, environmental design. 6 periods. Prerequisites: 60:026; 60:027.
60:126(g). Design V: Individual Design Study-3 hrs. Advanced design problems and practicum. Practical application of design skills in cooperation with local business and industry. May be taken for two semesters for a total of 6 hours credit. 6 periods. Prerequisite: 60:125.
*60:131(g). Advanced Photography- $\mathbf{1 - 5}$ hrs.
An extension of photography as creative image making; in-depth look at processes, criticism, and student's own ideas and directions in photography. May be repeated for credit.
*60:134(g). Advanced Printmaking-1-5 hrs.
Credit to be determined at time of registration. May be repeated for credit.
*60:137(g). Advanced Sculpture- $1-5 \mathrm{hrs}$.
Credit to be determined at time of registration. May be repeated for credit.
60:141(g). Art History $\mathbf{- 3}$ hrs.
May be repeated for credit but not in the same section. Students may select from the following sections: 1. Medieval; 2. Northern Renaissance; 3. Indian; 4. Japanese; 5. Ancient Orient; 6. Classical Ancient; 7. Chinese.
60:142(g). Italian Renaissance Art- $\mathbf{3}$ hrs.
History of 14th, 15th, and 16th century Italian art.

History of Baroque and Rococo art in 17th and 18th century Europe.
$\mathbf{6 0 : 1 4 6 ( g ) . ~ 1 9 t h ~ C e n t u r y ~ E u r o p e a n ~ A r t - 3 ~ h r s . ~}$
Napoleonic art to Art Nouveau.
60:147(g). Oriental Art-3 hrs.
Introduction to the arts of India, Southeast Asia, China and Japan.
60:148(g). Contemporary Art History-3 hrs.
Studies in the nature and role of contemporary art. *60:150(g). Advanced Ceramics-1-5 hrs.
Credit to be determined at time of registration. May be repeated for credit.
*60.156(g). Advanced Crafts- $\mathbf{1 - 5}$ hrs.
Credit to be determined at the time of registration May be repeated for credit. 1. Wood. 2. Fibers, 3 General Crafts.
$\mathbf{6 0 : 1 6 0}(\mathrm{g})$. Puppetry -3 hrs .
Design, construction, manipulation, and staging of puppets and marionettes. 6 periods.
*60:167(g). Advanced Art-Film-1-5 hrs.
Use of film as a visual art medium. Emphasis on? individual artist as a film maker. Prerequisi, 60:060 or equivalent.
*60:170(g). Advanced Metalwork-1-5 hrs.
Credit to be determined at time of registration. May
be repeated for credit.

* $60: 180(\mathrm{~g})$. Advanced Painting- $1-5 \mathrm{hrs}$.

Credit to be determined at time of registration. May be repeated for credit.
$\mathbf{6 0 : 1 9 5}(\mathrm{g})$. Artist-Teacher Seminar-2 hrs.
Evolution of contemporary art education philosophy and the dynamic role of the twentieth century artist-teacher. Place of the artist-teachen in society and in the community. Art demands of our present culture and implications for the art education program in terms of methods and materials. Prerequisite: 60:095.
60:198. Independent Study.
60:275. Art Projects-2-8 hrs.
Credit to be determined at time of registration. May be repeated for credit. Prerequisite: approval of graduate adviser. 1. Drawing, 2. Ceramics, 3. Painting, 4. Printmaking, 5. Sculpture, 6. Crafts, 7. Metalwork, 8. Design.
60:289. Seminar.
60:292. Research and Bibliography -3 hrs .
60:293. Research in Art History-1.5 hrs.
May be repeated for credit. Prerequisite: 6 hours of Art History or proficiency and department ap. proval.
60:295. Seminar in Teaching Art-3 hrs.
Specific art education relating to public schools with emphasis upon continuity of art activity. Satisfies the special methods elective for the professional core.
60:296. The Supervision of Art-3 hrs.
Teaching problems and practices relating to the curriculum and the supervision of art.
60:297. Practicum.
60:299. Research.

[^2]*First registration for $\mathbf{3}$ hours only.

# English Language and Literature 

Cahill, Head. Baughman, Brooks, S. Cawelti, Day, DeHoff, C. Eblen, Ford, Forest, R. Gish, R. Goodman, Hiduke, G. Hovet, T. Hovet, Hubly, Jewell, V. Johnson, Kalmar, J. Kimball, Klinkowitz, LaRocque, McKean, L. Rackstraw, Remington, Samuels, Schmidt, F. Smith, L. Taylor, Tharp, R. J. Ward, Wheeler, R. Wilson, E. Wood.ENGLISH MAJOR-TEACHINGRequired: 62:034; 62:190 ................................................................ . . 6 hoursRequired: two of the following: 62:002; 62:003; 62:004;62:103; 66:0406 hours
Required: a course in American literature before WWI; a course in British literature before WWI; a course in literature other than British and American ..... 8-9 hours
Required: 62:162 or 63:125; and one of the following: 62:166*; 62:184; 63:141*; 63:144; 63:147 ..... 6 hours
Electives in English ..... 15-16 hours42 hours
(*Especially recommended for this major.)
23:130, Problems in Reading in Secondary Schools, may be takenfor credit on this major.
ENGLISH MAJOR
Required: 62:034; at least one course in writing and one course in linguistics ..... 9 hours
Electives in English ..... 33 hours
42 hours
TEACHING ENGLISH AS A FOREIGN LANGUAGE MAJOR (TEFL)
Required: 62:002; another writing course ..... 6 hours
Required: 62:034; a course in American literature; a course in British literature 9 hours
Required: 62:162; 62:166 or 63:125; 63:141; 63:144; 63:147; 63:194 ..... 18 hours
Electives in literature or linguistics ..... 6 hours39 hours

Note: Foreign students must register for 63:105 in order to demonstrate their competence in English. At the end of the first week of the term the instructor may release a student from this requirement. May not be counted for credit on the TEFL program.

It is strongly recommended that native speakers of English majoring in TEFL or Linguistics programs demonstrate a basic competence in a foreign language either by obtaining at least a $C$ grade in the second semester of a language course or by passing a proficiency examination.

This major does not make one eligible for certification to teach.
ENGLISH LINGUISTICS MAJOR
Required: 62:002; 62:034; a course in American literature;a course in British literature12 hours
Required: 62:162; 62:164; 62:166; 63:010; 63:120; 63:125; 63:141; 63:144 23-24 hours
Cognate electives: a minimum of six hours from-
$40: 118 ; 51: 105 ; 51: 106 ; 63: 198 ; 65: 104 ; 65: 119 ; 80: 169 ; 80: 170$ ..... 6 hours
It is strongly recommended that native speakers of English majoring in TEFL or Linguistics programs demonstrate a basic competence in a foreign language either by obtaining at least a $C$ grade in the second semester of a language course or by passing a proficiency examination.
ENGLISH MINOR-Teaching
Required: 62:034; 62:190 ..... 6 hours
Required: one course each in: writing, linguistics, and both American and British literature before WWI 12 hours
Electives in English ..... 6 hours
24 hoursThis minor requires achievement of a minimum cumulative grade point average of 2.25 inEnglish courses.
ENGLISH MINOR
Required: 62:034 and a course in writing ..... 6 hours
Electives in English ..... 12 hours
18 hours
ENGLISH AS A FOREIGN LANGUAGE MINOR-Teaching and Liberal Arts
Required: 62:162; 63:141; 63:144; 63:147; 63:194 15 hours
Since these courses are given in a two-year sequence it is desirable to begin the sequence at the beginning of the sophomore year. No foreign language is required.
JOURNALISM MINOR-Teaching and Liberal Arts
Required: 66:032; 66:040; 66:104; 66:105 ..... 8 hours
Electives: at least 7 hours from the following:
66:102; *66:103; 66:104; 66:105; 66:131; 66:132; 66:141; 66:150;13:142; 13:147; 13:162; 24:147; 33:155; 33:158; 50:060;50:061; 50:062; 50:1617 hours*Recommended for students on the teaching program.
LINGUISTICS MINOR
Required: 63:125; 63:120; 63:141; 63:144; 62:164 14-15 hours
LANGUAGE ARTS SUBJECT FIELD-Middle School/Junior High Education Major*
Required: 62:002; 62:034; 62:165; 62:190; 21:044; 23:110;23:130; plus a $2-3$ hour course in speech24-25 hours
(*See Department of Curriculum and Instruction, page 111.)

NOTE: Three, interdepartmental programs offered cooperatively by the Department of Foreign Languages and the Department of English Language and Literature are listed on pages 144 and 145. These are TEFL/Foreign Language Major-Teaching, English and Foreign Language Combined Major, and Comparative Literature Minor.

## ENGLISH

62:001. Writing: Fundamentals- $\mathbf{3}$ hrs. Development of basic skills in writing, with emphasis on organization, the use of details, effective word choice, and sentence patterns. Does not count for credit on English major.
62:002. Writing: Language- $\mathbf{3}$ hrs.
Writing based on readings about language and the student's language experience.
62:003. Writing: Exposition- 3 hrs.
Exploring and communicating, in writing, ideas stressing various prose patterns and techniques.
62:004. Writing: Argument and Persuasion- $\mathbf{3}$ hrs.
Writing on controversial issues with an exphasis on the development of evidence, the study of audience psychology, and the objective evaluation of others.

## 62:031. Introduction to Literature- $\mathbf{3} \mathbf{~ h r s . ~}$

Understanding and appreciating the basic forms of imaginative literature. May not be taken for major credit.
62:034. Analysis of Literary Forms- $\mathbf{3}$ hrs.
Literary analysis and evaluation of the short story, novel, drama, and poetry.
62:035. Introduction to Film- $\mathbf{3}$ hrs.
An examination on an introductory level of four film genres: Narrative, documentary, animated, experimental; preparation for further work, either individually or academically.
62:040. The Short Novel-2 hrs.
May not be taken for major credit.
62:042. Survey of English Literature I-3 hrs.
Major trends and masterpieces from Medieval, Renaissance, and early 18th Century period; 700-1750.
62:043. Survey of English Literature II- $\mathbf{3}$ hrs.
Major trends and masterpieces from later 18th Century, Romantic, Victorian, and Modern periods; 1750 to present.
62:053. American Masterpieces- 1 hrs.
Selected works by major American writers from Colonial times to present. Does not count for credit on English major.
62:060. World Literature I-3 hrs.
Masterpieces of Western and non-Western literature from the beginnings to 1650 .
62:061. World Literature II- $\mathbf{3} \mathbf{h r s}$.
Masterpieces of Western and non-Western literature from 1650 to the present.
62:070. Creative Writing- 3 hrs.
Initial experiences in writing of fiction or poetry. May not be repeated for credit.

62:103. Advanced Writing- $\mathbf{3}$ hrs.
62:112(g). Drama: Aeschylus to Ibsen- $\mathbf{3}$ hrs.
62:113(g). British Drama to 1642-3 hrs.
Major dramatists not including Shakespeare.
62:114(g). British Drama 1660 through Wilde- 3 hrs.
62:115(g). Modern Drama- $\mathbf{3}$ hrs.
American, British and Continental.
62:116(g). English Renaissance- $\mathbf{3}$ hrs.
1500-1642.
62:117(g). Dryden through Johnson-3 hrs.
1660 to 1785 . Emphasis on Dryden, Swift, Steele, Addison, Pope, and Johnson.
62:118(g). English Romantic Poets-3 hrs.
Emphasis on Blake, Wordsworth, Coleridge, Bryon, Keats, and Shelley.
62:119(g). Victorian Literature- $\mathbf{3}$ hrs.
Prose and Poetry.
62:120(g). 20th Century British Novel- $\mathbf{3}$ hrs.
62:121(g). The American Renaissance- 3 hrs.
Major writers of the 1840 's and 1850's: Hawthorne. Melville, Emerson, Thoreau, and early Whitman.
62:122(g). American Genteel Writers- $\mathbf{2}$ hrs.
Nineteenth-century novel and such writers as Freneau, Irving, Cooper, Bryant. Lowell, Holmes, Lanier, and Timrod.
62:123(g). American Realism and Naturalism to WWI- 3 hrs.
Fiction from 1870 through WWI.
62:124(g). 20th Century American Novel- 3 hrs.
62:125(g). Contemporary Southern Literature- $\mathbf{3}$ hrs. 1920 to the present.
62:126(g). The American Short Story-3 hrs. From Poe to the present.
62:127(g). American Drama-3 hrs.
Developments in American drama: emphasis on works of Eugene O'Neill, Maxwell Anderson, Arthur Miller, and Tennessee Williams.
62:128. Images of Women in Literature- 3 hrs.
Images, symbols, and myths of women in literature; feminist criticism. Prerequisite: 62:034.
62:134(g). Modern British and American Poetry -3 hrs .
Since 1914.
62:135(g). Continental Short Story-3 hrs.
62:136(g). Faulkner-3 hrs.
62:144(g). Chaucer- 3 hrs .

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62:147(g). Milton- $\mathbf{3}$ hrs.
Milton's major English poetry and prose.
62:148(g). Shakespeare- 3 hrs.
62:153(g). Major American Poets to 1900-3 hrs.
62:154. Afro-American Literature- 3 hrs.
A study of Black writers in America.
62:155. Continental Novel through Tolstoy -3 hrs.
62:156(g). British Novel through Hardy - $\mathbf{3}$ hrs.
62:161(§). Literary Criticism-3 hrs.
Twentieth-century literary criticism and its historical backgrounds.
62:162(g). The Structure of English-3 hrs.
Linguistic analysis of the major phonological, syntactic, and semantic properties of modern American English.
62:164(g). Semantics- 3 hrs.
Traditional and recent theories of meaning in language.

## 62:165(g). Literature for Adolescents-2 hrs.

Reading and evaluation of literature suitable for adolescents.

62:166(g). History of the English Language- $\mathbf{3}$ hrs.
Developmental survey of the English language from its beginnings to the present as a product of linguistic change and variation, political history, and social attitude. Prerequisite: 62:162 or 63:125.
62:174(g). Poetry Workshop-1-6 hrs.
May be repeated for credit. Prerequisite or corequisite: 62:080 and consent of instructor.
62:175(g). Fiction Workshop- $1-6$ hrs.
May be repeated for credit. Prerequisite or corequisite: 62:081 and consent of instructor.
62:180(g). The Craft of Poetry- $\mathbf{3}$ hrs.
Forms, techniques, and problems in poetry writing; primarily for students interested in creative writing.
62:181(g). The Craft of Fiction- $\mathbf{3}$ hrs.
Forms, techniques, and problems in fiction writing; primarily for creative writing.
62:184(g). Old English-3 hrs.
62:18\%(g). Senior Seminar in Literature-3 hrs.
For seniors only. Topic to be announced in semester schedule of classes.
62:189. Independent Reading in English-1-4 hrs.
This course is not offered as a class. A student. with permission of the Head of the Department, secures a prepared reading list in one of the four areas: ancient drama, modern drama, fiction. poetry. After completing the readings he submits himself to a departmental examination. Credit and grade are assigned on the same basis as other courses taken for credit by examination. The same fee system operates, the student is entirely on his own, since no group or individual discussion sessions are provided, but the student is free to consult the instructor who prepared the reading list concerning its scope and intent. Prerequisite: 62:034. Maybe repeated for a maximum of 8 hours.

62:190(g). The Teaching of English-3 hrs.
Credit also as a course in education for a student whose major is English.
62:193(g). The Teaching of Writing- $\mathbf{3}$ hrs.
62:195(g). Teaching of Creative Writing- -3 hrs.
For English majors and minors, and elementary education majors with a language arts emphasis.
62:198. Independent Study.
See pp. 57. 75.

## 62:201. Introduction to Graduate Study in English

 -3 hrs .Introduction to the problems, techniques, and tools of graduate-level study and research in English.
62:204. Advanced Literary Criticism- $\mathbf{3}$ hrs.
62:207. The English Curriculum- $\mathbf{3}$ hrs.
Theories behind the teaching of English and trends in curriculum methods and materials, particularly in secondary English.
62:221. English Renaissance Literature-3 hrs. (1485-1612)
62:222. 17th Century English Literature -3 hrs. (1612-1660)

62:223. 18th Century English Literature- $\mathbf{3}$ hrs. (1660-1798)
62:225. 19th Century English Literature-3 hrs. Romantic or Victorian (1798-1900).
62:226. Modern English Literature- $\mathbf{3}$ hrs. (1900-1945)

62:231. American Romantic Literature-3 hrs. (1800-1870).
62:232. American Realistic and Naturalistic Literature- 3 hrs.
(1870-1912)
62:234. Modern American Literature-3 hrs. (1912-1945).
62:260. Contemporary Fiction--3 hrs. (1945-present).
62:261. Contemporary Poetry- 3 hrs. (1945-Present).
62:262. Contemporary Drama-3 hrs. (1945-Present).

62:264. Continental Literature- $\mathbf{3}$ hrs.
62:284. Seminar in Literature- -3 hrs .
62:291. Seminar in the Teaching of English- $\mathbf{3}$ hrs.
62:292. Teaching English in the Community College- 3 hrs.
Curriculum and instructional strategies suitable for the community college in meeting the needs of the diverse population of the two-year college.

## 62:297. Practicum.

Graduate-level student teaching. See p. 75.
62:299. Research.

## UINGUISTICS

(See pages 139 and 140 for TEFL and English Linguistics programs.)

63:010. Language and Culture- $\mathbf{3}$ hrs.
Fundamental concepts used in the study of language, culture, and their interrelationships. Discussion of ethnolinguistic variations and universals.

## 63:105(g). English Language for Foreign Students - 3 hrs.

The patterns and idioms of English for non-native speakers with guided practice in speaking, writing, and comprehension.
63:120(g). Historical and Comparative Linguistics -3 hrs .
Theories of language change and diversification. Discussion of genetic and typological classification, reconstruction, dialect emergence, and linguistic universals. Prerequisite: 63:125 or 62:162.

63:125(g). Introduction to Linguistics- $\mathbf{3}$ hrs. Examination of the major phonological, syntactic, and semantic aspects of a variety of human languages.

63:141(g). Transformational Grammar-3 hrs.
Theories of grammar from a generativetransformational point of view with special emphasis on English syntax. Prerequisite: 62:162 or 63:125.

63:144(g). Introduction to Phonology- 3 hrs.
The sound systems of human languages, including articulatory and acoustic phonetics, structural phonemics, distinctive features, and generative phonology. Prerequisite: 62:162 or 63:125.
63:147(g). Problems of English Grammar-3 hrs.
Prerequisite: 62:162 or 63:125.
63:194(g). Teaching English as a Foreign Language- 3 hrs.
Methods and materials. Classroom practices, textbooks, language laboratory, testing. Prerequisite: 62:162 or 63:125.
63:198. Independent Study.
63:231. Dialectology- 3 hrs .
Techniques of collecting, analyzing, and presenting dialect data. Characteristics of regional and social dialects with major emphasis on American English. Prerequisite: 62:162 or 63:125.
63:235. Contrastive Analysis- $\mathbf{3}$ hrs.
Techniques of comparing the grammatical systems of a target and a native language, and the pedagogical applications of such analysis. Prerequisite: 62:162 or 63:125.
63:254. Phonology- 3 hrs.
Intensive investigation of phonological systems and the theories which attempt to explain them. Prerequisite: 63:144.
63:256. Linguistic Theory- $\mathbf{3}$ hrs.
Prerequisite: 63:141.

63:285. Seminar in Language- $\mathbf{3}$ hrs.<br>63:289. Seminar in Linguistics- $\mathbf{3}$ hrs.<br>Prerequisite: 62:162 and 62:166.<br>63:297. Practicum.<br>Graduate-level student teaching of English as a foreign language.

63:299. Research.

## SCHOOL JOURNALISM

(See page 140 for Journalism minor.)
66:032. Introduction to Mass Media- $\mathbf{3}$ hrs.
Technical and critical survey of print and electronic media, and related fields.

66:040. Reporting and News Writing- 3 hrs.
News values; methods of obtaining, verifying, and presenting news.
66:102(g). Magazine Article Writing-3 hrs. Writing and marketing different types of articles for various publications.

## 66:103(g). High School Newspaper and Yearbook -3 hrs .

Advising school publications; staff organization; methods of printing; policies, style, content, textbooks, business management. Prerequisite: 66:040 or consent of instructor.

66:104(g). Journalism Laboratory I-1 hr.
Practical experience in gathering and writing news stories for local media, especially campus publications. May be repeated for a total of 3 hours. Prerequisite: 66:040 or consent of instructor.

66:105(g). Journalism Laboratory II- $\mathbf{1}$ hr. Writing feature, investigative, and interpretive articles for local media, especially campus publications. May be repeated for a total of 2 hrs . Prerequisite: 60:040 or consent of instructor.

66:131(g). History of Mass Communications- $\mathbf{3}$ hrs. Development of American newspapers and periodicals, from early beginnings in Europe to present day; rise of radio and television.
66:132(g). Mass Communication Law-3 hrs. Origins and backgrounds of press law: Libel and its defenses, penalties, right of privacy; problems of fair trial. Law and self-regulation in advertising, in broadcast media.

66:141. Feature and Editorial Writing-3 hrs.
Writing feature articles and editorials for publication. Prerequisite: 66:040 or consent of instructor.
66:150(g). Editing and Design- 3 hrs.
Copyreading, proofreading, writing headlines; studying make-up, typography, and photography.

## English/Foreign Language Programs

The following three programs are offered cooperatively by the Department of English Language and Literature and the Department of Foreign Languages, and are under the joint jurisdication and supervision of these two departments.

TEFL/Foreign Language Major-Teaching
English and Foreign Language Combined Major
Comparative Literature Minor
Advisers for these programs are assigned by the respective department heads.

## TEFL/FOREIGN LANGUAGE MAJOR-TEACHING

This major is offered cooperatively by the Department of English Language and Literature and the Department of Foreign Languages, and is under the joint jurisdiction and supervision of these two departments.

Required core: 62:002; 62:034; 62:162; 63:141; 63:144; 63:147;
63:194; 70:110; and 6 hours of linguistic courses
30 hours
Required: $\mathbf{3 0}$ hours from one of the language *emphases below 30 hours 60 hours
*Emphases-
French: 72:011; 72:051 (3 hrs.); 72:061 (2 hrs.); 72:070; 72:101; 72:125; 72:180; 70:190; at least one 3-hour French literature course; and electives in French to make 30 hours.
German: 74:051 (3 hrs.); 74:052 (3 hrs.); 74:061 (2 hrs.); 74:062 (2 hrs.); 74:071; 74:101; $74: 123 ; 74: 107 ; 74: 160 ; 74: 180 ; 70: 190$; and electives in German to make 30 hours.
Spanish: 78:051 (6 hrs.); 78:061 (4 hrs.); 78:071; 78:101; 78:105; 78:125; 78:107; 78:180; 70:190; and electives in Spanish to make 30 hours.


## ENGLISH AND FOREIGN LANGUAGE COMBINED MAJOR

This major is offered cooperatively by the Department of English Language and Literature and the Department of Foreign Languages, and is under the joint jurisdiction and supervision of these two departments.

Required core: 62:002; 62:034; 63:141; 63:144; 63:147; 62:162 or 63:125;
63:120; 70:110; and electives in linguistics to make .............................. 30 hours
Required: one of the language *emphases below ..................................... 27 hours
57 hours

## *Emphases-

French: 72:011; 72:051 (3 hrs.); 72:061 (2 hrs.); 72:070 or 72:072; 72:010; 72:103; 72:125; and 5 hrs. in French to make 27 hours.
German: 74:051 (3 hrs.); 74:052 (3 hrs.); 74:061 (2 hrs.); 74:062 (2 hrs.); 74:071; 74:101; 74:123; and eight hours from 74:101, 74:103, 74:116, 74:118, 74:150, 74:160, 74:180 to make 27 hours.
Spanish: 78:051 (6 hrs.); 78:061 (4 hrs.); 78:101; 78:103; 78:123; 78:140; 78:180; 78:107 to make 27 hours.

## COMPARATIVE LITERATURE MINOR

This is an interdisciplinary minor administered jointly by the Department of English Language and Literature and the Department of Foreign Languages.

Required: 70:110; 70:105; 62:161 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9 hours
A 100-level course in English literature . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Electives:
For Foreign Language Majors70:180 ............................................................................... . . 4 hours
English literature at the 100 -level (excluding 62:136, 62:144, 62:147, 62:148) ............................................................... . . 3 hours
For Non-Foreign Language Majors 70:180 .............................................................................. . . 4 hours 7X:071 or 7X:072 (available in French, German or Spanish) . . . . . . . . . . . . . . . . 3 hours 19 hours
A reading knowledge of one foreign language is required.
This minor is designed for foreign language majors and students of English literature who demonstrate a reading knowledge of a foreign language. Other students who can demonstrate a reading knowledge of a foreign language may also enroll.

## Foreign Languages

König, Head. Chabert, B. Chung, Clay, Dubois, Febles, Franco, K. Hansen, Hawley, Jamosky, Jokumsen, Kane, Koppensteiner, Mueller, Mũnoz, Nicholson, Nodarse, M. Oates, K. Odwarka, Parker, Sacks, J. Schwartz, Strother, N. Vernon, Walther, Wieland, Zucker.

NOTE: Major programs available include French, German, Spanish, and the Foreign Languages Subject Field for the Middle School/Junior High School Major. Minors include French, German, Latin, Russian, and Spanish. Courses are offered in all of the above five languages.

Three interdepartmental programs are offered cooperatively with the Department of English Language and Literature and are listed on pages 144 and 145. These programs are TEFL/Foreigu Language Major-Teaching, English and Foreign Language Combined Major, and the Comparative Literature Minor.

A student who has previously been enrolled in the foreign languages at this institution will be advised by his instructor as to the sequence of succeeding courses.

A student who has never had the foreign language should enroll in the Elementary I course.
The individual student's previous background and facility in acquiring basic skills may necessitate his taking addidional work in lower division courses not specifed in the major.

## FRENCH MAJOR-TEACHING

Required: minimum of 30 semester hours in French in courses more advanced than 72:002, including 72:070, 72:072, 72:101, 72:180, and 70:190, of which at least 20 hours must be in courses numbered 100 or higher.

## FRENCH MAJOR

Required: minimum of 30 semester hours in French in courses more advanced than 72:002, including 72:070, 72:072, and 72:101, of which at least 20 hours must be in courses numbered 100 or higher.

## FRENCH MINOR-Teaching and Liberal Arts. <br> Electives in French courses more advanced than 72:002 <br> 16 hours

## GERMAN MAJOR-TEACHING

Required: minimum of 30 semester hours in German in courses more advanced than 74:002, including 74:071, 74:070, 74:101, 74:105, 74:180, and 70:190, of which at least 20 hours must be in courses numbered 100 or higher.

## GERMAN MAJOR

Required: minimum of 30 semester hours in German in courses more advanced than 74:002, including 74:071, 74:070, and 74:101 of which at least 20 hours must be in courses numbered 100 or higher.
GERMAN MINOR-Teaching and Liberal ArtsElectives in German in courses more advanced than 74:00216 hours
LATIN MINOR-Teaching and Liberal Arts
Electives in Latin courses more advanced than 76:002 ..... 16 hours

## RUSSIAN MINOR-Teaching and Liberal Arts

Electives in Russian courses more advanced than 77:002
16 hours

## SPANISH MAJOR-TEACHING

Required: minimum of 30 semester hours in Spanish in courses more advanced than 78:002, including 78:071, 78:072, 78:101, 78:105, 78:180, and 70:190, of which at least 20 hours must be in courses numbered 100 or higher.

## SPANISH MAJOR

Required: minimum of 30 semester hours in Spanish in courses more advanced than 78:002, including 78:071, 78:072, 78:101, and 78:105, of which at least 20 hours must be in courses numbered 100 or higher.
SPANISH MINOR-Teaching and Liberal Arts
Electives in Spanish in courses more advanced than 78:002 16 hours
FOREIGN LANGUAGE SUBJECT FIELD—Middle School/Junior High School Education Major**
French -
Required: 72:051 and 72:061 ..... 5 hours
Required: 72:001; 72:070; 72:101; 72:103* or 72:124 or 72:125; plus a 2-hour course in methods or pre-practicum ..... 16 hours
*If 72:103 is elected, the student is strongly advised to take one of the two courses in French Civilization.
German -
Required: 74:051 and 74:061 ..... 5 hours
Required: 74:052 and 74:062 .5 hours
Required: 74:101; 74:123; 74:190; 74:061 or 74:103 or 74:108 ..... 11 hours
Spanish -
Required: 78:051 and 78:061 ..... 10 hours
Required: 78:101; 78:103; 78:123 or 78:142; plus a 2-hour course in methods or pre-practicum ..... 11 hours
(**See Department of Curriculum and Instruction, page 111.) ..... 21 hours

GENERAL FOREIGN LANGUAGE COURSES

70:050. Phonetic Theory and Practice- 1 hr . Practical phonetic training. Work in language laboratory required.

70:105(g). Comparative Stylistics- $\mathbf{3}$ hrs.
Techniques of comparative literary analysis, emphasizes aesthetic aspects of literature. Taught in English. Prerequisite: reading knowledge of one foreign language.
70:110(g). Comparative Study of Western Literature and Civilization- $\mathbf{3}$ hrs.
A comparative study of major literary movements and philosophical concepts and their impact on Western culture. A team-teaching approach will be used in order to present literary and cultural areas from different points of view and to show how the
different countries, their literatures, languages and cultures are interlinked and how they have influenced one another. 1 hour of credit earned may be counted toward a major in a foreion language. Taught in English.
70:180(g). Translation of Literary Texts- 4 hrs.
Theories and techniques of literary translation. Prerequisite: reading knowledge of one foreign gk
70:190(g). The Teaching of Foreign Languages -2-4 hrs.
Credit also as a course in education for a student whose major is foreign languages. This course ordinarily should precede student teaching. Prerequisite or corequisite: 72:180 or 74:180 or 78:180. 70:198. Independent Study.
See pp. 57, 75.

## FRENCH

(See page 146 for programs in French.)
72:001. Elementary French I--5 hrs. For beginners.
72:002. Elementary II-5 hrs.
Continuation of 72:001. Prerequisite: 72:001 or equivalent.

## 72:011. Intermediate French-5 hrs.

Provides thorough review of the patterns of French as weil as development of vocabulary and emphasis on speaking and writing. Prerequisite: 72:002 or equivalent.
72:051. Intermediate Composition- $\mathbf{2 - 3} \mathbf{~ h r s . ~}$
Progressive development of writing skill through a sequence of graded exercises on topics related to French civilization, with a review of basic structure. (Combination of credits together with 72:061 may not total more than 5 hours in one semester.) Prerequisite: 72:002 or equivalent; 72:011 or equivalent. Corequisite: 72:061 or other intermediate course with approval of department head.
72:061. Intermediate Conversation-2-3 hrs.
Develops oral fluency through pattern practice, systematically guided conversations on civilization topics using structures reviewed in the corresponding composition course and free conversation on subjects of current interest. (Combination of credits together with 72:051 may not total more than 5 hours in one semester.) Prerequisite: 72:002 or equivalent: 72:011 or equivalent. Corequisite: 72:051 or other intermediate course with approval of department head.
72:070. Selected French Readings- $\mathbf{3}$ hrs.
Intensive reading and discussion of extracts from books and magazine articles to develop reading ability through non-literary texts on various subjects of interest to the class, and develop other language skills through discussion. Prerequisites: 72:051 and 72:061, or equivalent.
72:072. Introduction to French Literature- $\mathbf{3}$ hrs.
Intensive study of great pages from leading writers, with the political and literary history of their time. Application of language skills to basic literary analysis. Prerequisite: 72:070.
72:101(g). Advanced Composition- $\mathbf{3}$ hrs.
Analysis of the major morphological and syntactical structures of the French language, with a look at contrasting grammatical and linguistic approaches to problems of correct usage. Stress will be placed on the successful application of the principles learned. May be repeated once for credit with approval of instructor. Prerequisite or corequisite: 72:072 or equivalent.
72:103(g). Advanced Conversation- $\mathbf{3}$ hrs.
Develops and improves oral fluency through free and guided conversation. May be repeated once for credit with approval of instructor Prerequisites: 72:051 and 72:061 or permission of instructor. 72:105(g). Stylistics- $\mathbf{3}$ hrs.
An introduction to stylistic analysis. Levelopment of style in composition through study of excerpts
from contemporary French works and literary translation into French. Prerequisites or corequisite: 72:101 or equivalent.
72:107(g). Listening and Comprehension- 3 hrs.
Develops and improves ease with which one understands all types of standard speech including taper material, readings, radio and television broadcasts and movies. Offered only on summer study tour.
72:114(g). Short Stories- $\mathbf{3}$ hrs.
Short stories from Vigny, Merimeé, Daudet, Maupassant, Aymé and others. Prerequisite or corequisite: 72:101 or equivalent.
72:118(g). Popular Prose Fiction- $\mathbf{3}$ hrs.
Novels from V. Hugo, A. Dumas, P. Benoit, Maurois, Daninos, Druon and/or others: Prerequisite or corequisite: 72:101 or equivalent.
72:124(g). Contemporary France- 3 hrs .
A survey of recent developments and a description of the country, its people, customs and way of life. institutions, ecomony, and art. Prerequisite or corequisite: 72:101 or equivalent.
72:125(g). French Culture and Civilization- $\mathbf{3}$ hrs.
Includes historical, cultural and sociological background for the understanding of contemporary France. May be repeated in summer institute abroad for 2 hrs. credit. Prerequisite: 72:101 or equivalent.
72:128(g). Literature of Ideas- -3 hrs .
Montaigne, Pascal, La Rochefoucauld, Saint Simon, La Bruycre, Montesquieu, Voltaire, Chateaubriand, Rousseau, de Tocqueville and their modern successors. Prerequisite or corequisite 72:101 or equivalent.
72:131(g). The Cpmedy from Molière to 1890-3 hrs. Plays from Molière, Marivaux, Beaumarchais, Musset, Labiche, Auier. Prerequisite or corequisite 72:101 or equivalent.
72:135(g). Poetry and Verse Drama- $\mathbf{3}$ hrs.
Representative poems selected for their enduring appeal with classical and romantic dramas from Corneille, Racine, Victor Hugo, Rostand. Prerequisite or corequisite: 72:101 or equivalent.
72:144(g). Novels of the $\mathbf{1 9}$ th and 20th Centuries -3 hrs .
Novels from Balzac, Stendhal, Flaubert, Proust, Robbe-Grillet and others. Prerequisite or corequisite: 72:101 or equivalent.
72:146(g). The Drama since 1890-3 hrs.
Plays from Romains, Pagnol, Claudel, Giraudoux, Anouilh, Sartre, Beckett, and others. Prerequisite or corequisite: 72:101 or equivalent.
72:160(g). Advanced Oral Practice- $\mathbf{2 - 4}$ hrs.
Development of oral fluency and greater accuracy through structured oral exercises; free conversation dealing with civilization and topics of current interest. Structural, morphological and phonetic exercises designed to meet the needs of the individual participants. Prerequisites or corequisite: 72:101 or equivalent.

72:180(g). Applied Linguistics: French- $\mathbf{2}$ hrs.
Basic linguistic concepts applied to learning the French Language. Prerequisite 72:101 or equivalent. 72:201. Advanced Composition and Stylistics -3 hrs . Study of stylistic devices; examination of principal morphological, syntactical and semantic problems.
72:203. Structure of French- $\mathbf{3}$ hrs.
Phonology, morphology, and syntax of current French. Stress is placed on areas of French structure which cause problems for native speakers of English.
72:205. Explication of Text- $\mathbf{3}$ hrs.
Analysis of the content and style of literary selections, studied in depth and used as models for guided composition.
72:207. Contemporary French Speech--2 hrs.
Understanding and identifying major levels of spoken French, including elegant, standard and familiar speech styles; structural, lexical, and phonological study of current. French speech, stressing areas of socio-linguistic importance.
72:231. Medieval Literature- $\mathbf{2}$ hrs.
History and civilization of the Middle Ages from 842 to 1515. Selections from medieval French in modern French translation.

## 72:281. Seminar- 2 hrs.

Various topics will be offered such as Medieval Literature, 16th Century Literature, 19th Century Prose, Contemporary Novel. Specific area to be announced on the Schedule of Classes for current semester. May be taken more than once provided it is on a different topic.

## GERMAN

(See page 146 for programs in German.)
74:001. Elementary German I-5 hrs.
For beginners.
74:002. Elementary German II- $\mathbf{5}$ hrs.
Continnuation of 74:001. Prerequisite: 74:001 or equivalent.
74:051. Composition I-2-3 hrs.
Progressive development of writing skill through a sequence of exercises on topics related to German civilization, with a review of basic structure. Prerequisite: 74:002 or equivalent; 74:061 recommended as corequisite.
74:052. Composition II-2-3 hrs.
Continuation of 74:051, leading to free composition. Prerequisite: 74:051 or equivalent; 74:062 recommended as corequisite.

## 74:061. Conversation I-2-3 hrs.

Develops oral fluency through pattern practice systematically guided conversation on civilization topics using structures reviewed in the corresponding composition course and free conversation on subjects of current interest. Prerequisite: 74:002 or equivalent; 74:051 recommended as corequisite.
74:062. Conversation II- $\mathbf{2 - 3}$ hrs.
Continuation of $74: 061$, with wider range of subjects, vocabulary, and structures. Prerequisite:

74:061 or equivalent; 74:052 recommended as corequisite.
74:070. Selected German Readings- $\mathbf{3}$ hrs.
Intensive reading and discussion of extracts from books and magazine articles of lasting interest suited to the interest of the class. Prerequisites: 74:051; 74:061.
74:071. Introduction to German Literature- $\mathbf{3}$ hrs.
Selected major works of representative German authors. Application of language skills to basic literary analysis. Prerequisites: 74:051 and 74:061 or equivalent.
74:101(g). Advanced Composition- $\mathbf{3} \mathbf{~ h r s . ~}$
Analysis of the major morphological and syntactical structures of the German language, with a look at contrasting grammitical and linguistic approaches to problems of correct usage. Stress will be placed on the successful application of the principles learned. Prerequisite or corequisite: 74:071 or equivalent. May be repeated once for credit with approval of instructor.
74:103(g). Advanced Conversation- 4 hrs.
Development of oral fluency through systematically guided conversations on civilization topics and free conversation on topics of current interest. Structural, morphological and phonetic exercises designed to meet the needs of the individual participant.

## 74:105(g). Stylistics- $\mathbf{3}$ hrs.

An introduction to stylistics analysis. Development of style in composition through study of excerpts from contemporary German works and literary translations into German. Prerequisite: 74:052 or equivalent.
74:107(g). Oral Translation-3 hrs.
74:114(g). German Lyric Poetry- $\mathbf{3}$ hrs.
Selections from major periods before 1885. Prerequisite or corequisite: 74:101 or equivalent.
74:116(g). Twentieth Century Prose Fiction-3 hrs. Representative works to 1950. Prerequisite or corequisite: 74:101 or equivalent.

## 74:118(g). Contemporary German Prose Fiction -3 hrs .

Representative works since 1950. Prerequisite or corequisite: 74:101 or equivalent.
74:119(g). Modern German Poetry-3 hrs.
Selections from Naturalism, Expressionism, Impressionism, and Contemporary authors. Prerequisite or corequisite: 74:101 or equivalent.
74:123(g). German Civilization- $\mathbf{3}$ hrs.
An introduction to the culture, history and geography of Germany. Prerequisite or corequisite: 74:101 or equivalent.
74:127(g). German Classicism-3 hrs.
Prerequisite or corequisite: 74:101 or equivalent.
74:128(g). Literature to Enlightenment- $\mathbf{3}$ hrs.
German Literature from the Beginnings to

Enlightenment. Prerequisite or corequisite: 74:101 or equivalent.
74:143(g). Nineteenth Century Prose Fiction- $\mathbf{3}$ hrs. Representative works from the Romantic Period to Naturalism. Prerequisite or corequisite: 74:101 or equivalent.

## 74:146(g). German Drama of the 19th Century -3 hrs.

Prerequisite or corequisite: 74:101 or equivalent.
74:147(g). Twentieth Century German Drama- $\mathbf{3} \mathbf{h r s}$. Prerequisite or corequisite: 74:101 or equivalent.
74:149(g). Applied Theater (German)-1-3 hrs. Participation in German Theater.

## 74:150(g). Contemporary Germany and Austria -3 hrs .

Introduction to the geography and contemporary cultural, political, and social institutions in German speaking countries. Prerequisite or corequisite: 74:101 or equivalent.
$74: 160(\mathrm{~g})$. History of the German Language- $\mathbf{3}$ hrs.
An introduction to the historical development of German. Prerequisite or corequisite: 74:101 or equivalent.
74:180(g). Applied Linguistics: German- 3 hrs.
Basic linguistic concepts applied to learning the German language. Prerequisite or corequisite: 74:101 or equivalent.
74:201. Advanced Composition and Stylistics- $\mathbf{3}$ hrs.
Study of stylistic devices: examination of principal morphological, syntactical, and semantic problems. May be offered for 4 hours on the summer study abroad program.
74:203. Structure of German- $\mathbf{3}$ hrs.
Description of Modern High German phonology, morphology, and syntax.

## 74:210. Middle High German Language and Literature- $\mathbf{3}$ hrs.

Introduction to the structure of Middle High German.
74:280. Seminar- $\mathbf{3}$ hrs.
Various topics will be offered such as Baroque Poétry, Classical Drama, Contemporary Prose riction, East German Literature. Specific area to be announced in Schedule of Classes for current semester. May be repeated for credit except when topic is identical.

## LATIN

(See page 146 for Latin Minor.)
76:001. Beginning Latin I-4 hrs.
A structural approach to Latin, implemented by oral-aural-visual stimuli. Subject matter consists of constrative analyses of Roman and American society, with special emphasis on politics and religion. For beginners.
76:002. Beginning Latin II-4 hrs.
Continuation of Latin I, with greater emphasis on syntax, and special emphasis on figures of speech, expansions of basic sentence patterns. Prerequisite: 76:001 or equivalent.

76:061: Intermediate Latin I-4 hrs.
Concentration on ability to read and to think in Latin. Introduction to Latin composition by means of structural formulae, based on models of Cicero, Livy, and Caesar. Prerequisite: 76:002 or equivalent.

## 76:062. Intermediate Latin II-4 hrs.

Continuation of Intermediate Latin I, with over-all goal as the ability to read, write, think, and speak in Latin. Structural analysis of Latin grammar, contrasted with English structural grammar.
76:130(g). Caesar- $\mathbf{3}$ hrs.
DeBello Gallico; the nature of dictatorship; the nature of Gallic and 20th Century liberation movements. Prerequsite: 76:062 or equivalent.
76:131(g). Cicero- 3 hrs.
Excerpts from various works; emphasis on the character of the statesman, 1st century B.C. and 20th century; structural analysis of Cicero's style. Prerequisite: 76:062 or equivalent.
76:132(g). Livy -3 hrs.
Ab Urbe Condita; an anthropological approach to Roman history which examines the illusions the Romans lived by. Examinations of theories of history, and methods of historical reporting Prerequisite: 76:062 or equivalent.
76:134(g). Vergil- $\mathbf{3}$ hrs.
Emphasis on nature of national identity, the nature of political propaganda, and the history of epic. Prerequisite: 76:062 or equivalent.
76:185(g). Individual Reading-1-3 hrs.
May be repeated to a maximum of 9 credits. More intensive work on individual authors, genres and periods. Prerequisite: 76:062 or equivalent.

## RUSSIAN

(See page 147 for programs in Russian.)
77:001. Elementary Russian I-5 hrs. For beginners.
77:002. Elementary Russian II- $\mathbf{5}$ hrs. Prerequisite: 77:001 or equivalent. 77:051. Composition I- 2 hrs.
Progressive development of writing, skill through a sequence of exercises on topics related to Russian civilization, with a review of basic structure. Prerequisite: 77:002 or equivalent; Corequisited 77:061 or other intermediate course with approval of Department Head.

## 77:052. Composition II-2 hrs.

Continuation of 77:051, leading to free composition, Prerequisite: 77:051 or equivalent; Corequisite ${ }^{4}$ 77:062 or other intermediate course with approval of Department Head.
77:061. Conversation I-3 hrs.
Develops oral fluency through pattern practice, systematically guided conversations on civilization topics using structures reviewed in the corresponding composition course and free conversation on subjects of current interest. Prerequisite: 77:002 or equivalent; Corequisite: 77:051 or other intermediate course with approval of Department Head.

77:062. Conversation II- $\mathbf{3}$ hrs.
Like 77:061, with a wider range of subjects, vocabulary and structures. Prerequisite: 77:061; Corequisite: 77:052 or other intermediate course with approval of Department Head.

## T:101(g). Advanced Grammar and Composition -3 hrs .

Analysis of the major morphological and syntactical structures of the Russian Language, with a look at contrasting grammatical and linguistic approaches to problems of correct usage. Stress will be placed on the successful application of the principles learned. Prerequisites: 77:052 and 77:062 or equivalent.
7:102(g). Introduction to Russian Literature- $\mathbf{3}$ hrs. Selected major works of representative Russian authors from the Beginnings to the First World War, with the political and literary history of their time. Application of language skills to basic literary analysis will be a primary goal. Prerequisites or corequisites: 77:052 and 77:062 or equivalent.

## 7:103(g). Introduction to Modern Russian Literature- $\mathbf{3}$ hrs.

Like 77:102, but dealing with the Soviet period. Prerequisites or corequisites: 77:052 and 77:062 or equivalent.

## 77:105(g). Stylistics- $\mathbf{3}$ hrs.

An introduction to stylistic analysis. Development of style in composition through study of excerpts from contemporary Russian works and literary translation into Russian. Prerequisites: 77:052 and 77:062 or equivalent.
7:131(g). Russian Poetry-3 hrs.
The leading Russian poets from Pushkin to the present time, with a preliminary study of Russian versification and early lyric poetry. The Golden Age of Poetry and leading nineteenth and twentieth century poets. Special attention will be given to works of Tyutchev, Fet, Nekrasov, Grigoriev, Balmont, Bryusov, Blok, Mayakovsky, Esenin, Pasternak.
77:132(g). The Nineteenth Century Russian Novel -3 hrs .
The development and evolution of the novel in nineteenth century Russian Literature. Concentration will be on the short novels of Pushkin, Lermontov, Gogol, Turgenev, Dostoevsky, Tolstoy and Chekhov. Selections from some of the significant longer novels of Tolstoy and Dostoevsky will also be included.
7:134(g). Contemporary Soviet Literature- $\mathbf{3}$ hrs.
Soviet literature from the year 1956 generally known as the year of the protest, to the present time. The significance of writing during this time, the changes from previous periods and factors affecting the output of Soviet writers, with emphasis on the "protest literature" and the appearance of the younger generation of poets.
77:141(g). Soviet Civilization- $\mathbf{3}$ hrs.
The culture of the Soviet Union as shaped by its geography, history and pre-history, and as revealed in it's arts, sports, customs, traditions and economic, social and political institutions.

## SPANISH

(See page 147 for programs in Spanish.)
78:001. Elementary Spanish I-5 hrs. For beginners.
78:002. Elementary Spanish II- $\mathbf{5}$ hrs.
Continuation of 78:001. Prerequisite: 78:001 or equivalent.

## 78:051. Intermediate Composition-2-6-hrs.

Progressive development of writing skill through a sequence of exercises on topics related to Hispanic civilization, with a review of basic structure. May be repeated once for credit with approval of instructor. (Combination of credits together with 78:061 may not total more than 5 hours in one semester.) Initial registration would be for 2-3 hours. Prerequisite: 78:002 or equivalent; corequisite: 78:061 or other intermediate course with approval of department head.
78:061. Intermediate Conversation-2-6 hrs.
Develops oral fluency through pattern practice, systematically guided conversations on civilization topics using structures reviewed in the corresponding composition course and free conversation on subjects of current interest. May be repeated once for credit with approval of instructor. (Combination of credits together with 78:051 may not total more than 5 hours in one semester.) Prerequisite: 78:002 or equivalent; corequisite: 78:051 or other intermediate course with approval of department head.

## 78:071. Introduction to Hispanic Literature I (Prose)- $\mathbf{3}$ hrs.

78:072. Introduction to Hispanic Literature II (Poetry)- 3 hrs.
78:101(g). Advanced Composition- 3 hrs .
Analysis of the major morphological and syntactical structures of the Spanish language with a look at contrasting grammatical and linguistic approaches to problems of correct usage. Stress will be placed on the successful application of the principles learned. Recommended to be taken with 78:071. Prerequisite: 78:051 and 78:061 or equivalent.
78:103(g). Advanced Conversation- 4 hrs.
Development of oral fluency through sysiematically guided conversations on civilization topics and free conversation on topics of current interest. Structural, morphological and phonetic exercises designed to meet the needs of the individual participant.
78:105(g). Stylistics- $\mathbf{3}$ hrs.
An introduction to stylistic analysis. Development of style in composition through study of excerpts from the comtemporary Spanish works and literary translation into Spanish. Prerequisite or corequisite: 78:071 or equivalent.
78:107(g). Introduction to Oral Translation-3 hrs.
78:112(g). Introduction to Latin American Literature- $\mathbf{3}$ hrs.
Trends in Latin American Literature and representative authors. Prerequisite: 78:071 and 78:072.

78:117(g). Contemporary Spanish Poetry-2 hrs. Peninsular poetry since the Generation of '98. Prerequisite or corequisite: 78:101 or equivalent.
78:118(g). Contemporary Spanish Prose- $\mathbf{3}$ hrs.
Peninsular novel, essay and drama since the Generation of '98. Prerequisite or corequisite: 78:101 or equivalent.
78:119(g). Modern Essay-2 hrs.
Peninsular and Latin American essay from the late 19th century to the present, with special emphasis on the essays of the Generation of '98. Prerequisite or corequisite: 78:101 or equivalent.

## 78:123(g). Spanish Civilization-3 hrs.

The Spanish cultural heritage as shaped by it's geography and history, and as revealed in its arts, sports, cust traditions and economic, educational, social and political institutions. Prerequisite or corequisite: 78:101 or equivalent.
78:130(g). Golden Age Prose- $\mathbf{3}$ hrs.
Stress will be placed on the Celestina, the picaresque novel, and Cervantes. Prerequisite or corequisite: 78:101 or equivalent.
78:132(g). Golden Age Drama and Lyric-3 hrs.
Study of the theater and poetry of the Spanish Renaissance and Baroque eras.. Intensive reading of selected comedies of Lope de Vega, Tirso de Molina, and Calderon, and the poetry of Garcilaso de la Vega, Gongora, Quevedo, Fray Luis de Leon, and San Juan de la Cruz. Prerequisite or corequisite: 78:101 or equivalent.
78:134(g). Nineteenth Century Spanish Literature -3 hrs .
Study of Romanticism, Realism, and Naturalism. Prerequisite or corequisite: 78:101 or equivalent.
78:139(g). Comtemporary Theater-2 hrs.
Peninsular and Latin American theater from the Generation of ' 98 to the present. Prerequisite or corequisite: 78:101 or equivalent.
78:140(g). Latin American Civilization- 3 hrs .
The culture of Latin America as shaped by its geography, history, and pre-history, and as revealed in it's arts, sports, customs, traditions and economic, social and political institutions. Prerequisite or corequisite: 78:101 or equivalent.
78:142(g). The Latin American Novel- $\mathbf{3}$ hrs.
The twentieth century will be stressed. Prerequisites or corequisite: 78:101 or equivalent.

## 78:144(g). Latin American Poetry-2 hrs.

Modernism and Post-Modernism will be stressed. Prerequisite or corequisite: 78:101 or equivalent.
78:150 (g). Written Communication- $\mathbf{3}$ hrs.
Topics taken from daily life; compositions written and corrected in the classroom, grammar review, and Spanish letter writing. Offered only in conjunction with the Spanish Institutes Abroad.

78:151(g). Advanced Oral Communication- $\mathbf{3}$ hrs. Topics of Spanish daily life, especially those related to Soria as an example of old Castile; emphasis on idioms typical of that linguistica community. Student to make periodic public surveys to put knowledge to more formal use. Offered only in conjunction with the Spanish Institutes Abroad.

78:152(g). Contemporary Spanish Culture- $\mathbf{3}$ hrs.
Contemporary Spanish culture as it reflects and related to it's history and pre-history as well as to current environment; emphasis on literature, architecture, painting, sculpture, and folk music. Offered only in conjunction with the Spanish Institutem Abroad.

78:180(g). Applied Linguistics: Spanish-2 hrs.
Basic linguistic concepts applied to learning the Spanish language. Prerequisite: 78:071 or 78:072, or equivalent.

## 78:201. Hispanic Literature: A Stylistic Review -3 hrs .

Study of stylistic devices characteristic of major periods in Spanish and Latin American literature.

## 78:203. Structure of Spanish- $\mathbf{3}$ hrs.

A study of the phonology, morphology and syntax of current Spanish. The sound system and grammatical constructions of Spanish discussed in the light of modern linguistic procedures.

## 78:205. Advanced Grammar- $\mathbf{3}$ hrs.

Analysis and application of syntax theory in the teaching and learning of Spanish grammar.
78:220. Oral Translation- $\mathbf{3}$ hrs.
Techniques of oral translation includia sim:laneous translation.
78:231. Cervantes- $\mathbf{3}$ hrs.
Intensive study of Don Quijote.
78:232. Old Spanish- 2 hrs.
A literary and linguistic study of the Poema de Mio Cid and other selected early works.
78:250. Culture of Castile- $\mathbf{3}$ hrs.
Old Castile-exploration of the essence of Castilia culture which forms the basis for the contemporad civilization of all Spanish-speaking countries. O fered only in conjunction with the Spanish Institutes Abroad.
78:282. Seminar-2 hrs.
Various topics will be offered such as Medieval Prose Fiction, Mexican Novel, Antillean Poetry, Renaissance Drama, Poetry of Federico Garcia Lorca. Specific area to announced on the Schedule of Classes for current semester. May be repeated except when topic is identical.

## Music

R.D. Ross, Head. Barry, R. Baum, C. Becker, *Beckman, Birkhead, Bock, Byrnes, Chidester, Gault, Gjerdingen, Graham, Halgedah1, J. Hansen, *Harlan, Hogancamp, Holstad, K. Holvik, M. Holvik, Jernigan, J.K. Johnson, Kennedy, Kratzenstein, Krueger, Little, C. Matheson, M. Matheson, Mauck, Maxwell, Michaelides, Pritchard, Sharon, Slavett, Smalley, Smoker, Stuart, Wendt, Willens.

## *on leave

## Bachelor of Arts Degree Programs

## MUSIC MAJOR-TEACHING

Required: applied music (includes required 4 hours numbered over 100 in major area) 16 hours
Required music theory: 58:050; 58:051; 58:052; 58:053; 58:055; 58:056; 58:057; 58:058 and electives ..... 16 hours
Required music literature: 59:170; 59:171 ..... 6 hours
Required music methods (elementary and secondary) ..... 8 hours
Required electives in music ..... 4 hours
Senior recital ..... 0 hours50 hours
MUSIC MAJOR
Required: applied music (includes required 4 hours numberedover 100 in major area)16 hours
Required music theory: 58:050; 58:051; 58:052; 58:053; 58:055; 58:056; 58:057; 58:058 ..... 12 hours
Required music literature: 59:170; 59:171 ..... 6 hours
Electives in music numbered 100 and above ..... 8 hours
Senior recital (may take the form of a performance, an essay, or a composition) ..... 0 hours

MUSIC MINOR-Teaching and Liberal Arts
Required: applied music ..... 2 hours
Required music theory: 58:050; 58:051; 58:055; 58:056 ..... 6 hours
Electives in music
Credit for Participation in an Organization may not be used on the minor.

## Bachelor of Music Degree Program

## MUSIC MAJOR: Voice

> Piano

Organ
Orchestral Instruments
Theory-Composition
Required: applied music ( 16 hours must be in major applied area)....................... 24 hours
Required: music theory ....................................................................... 24 hours
Required: music history and literature ....................................................... 8 hours
Required: recital, paper, or composition ..................................................... 2 hours
Required: music electives.................................................................... 15 hours
73 hours
Majors in theory-composition must present for graduation a paper in the field or an original composition in addition to the 24 -hour requirement in Music Theory.

Applied Music Credit: beginning with the fifth semester of study, the Bachelor of Music major only may earn four (4) semester hours of credit for two half-hour lessons per week in his major area of applied performance per semester.

## REQUIREMENTS FOR ALL UNDERGRADUATE MUSIC MAJORS:

Music majors on all degree programs must choose an area of applied music (54:xxx - known as the applied major field) for specialization and must meet the proficiency standards of the department.

Auditions: Admission to the Department of Music requires successful completion of an audition in the main performance area.

Piano Proficiency: Required of all majors.
Voice or Instrumental Proficiency: Required of all keyboard majors.
Foreign Language: Ten (10) hours in a foreign language is strongly recommended for a student whose applied concentration is voice.

Large Organizations: In addition to the applied music, all music majors must participate in at least one of the large organizations each semester that they are enrolled as a regular university student. Participation in ensembles does not satisfy the large organization requirement unless exception is made in advance by the head of the department.
-Wind and percussion students will elect either band or orchestra, and are required to participate in Marching Band for two semesters experience.
-String players will elect the orchestra.
-Voice majors will elect an appropriate choral group and/or music theater.
-Keyboard majors will elect a large organization for their participation requirement.
Credit for Participation in an Organization: One hour of credit may be earned by a student who completes a semester in an organization. Credit is reported only at the close of each semester. Not more than two hours of such credit may be used in meeting Bachelor of Arts degree
requirements, except for music majors. All music majors may earn up to a total maximum of six (6) semester hours toward the Bachelor of Arts or the Bachelor of Music degrees for organization participation. Not more than two (2) credits in Jazz Band may be counted toward the maximum allowable hours.

Numbers in this group are assigned as follows, based on the student's classsification.
52:010, 52:110. Concert Chorale
52:011, 52:111. University Chorus
52:012, 52:112. Ensemble
52:013, 52:113. Women's Chorus
52:014, 52:114. Varsity Men's Glee Club

## GENERAL COURSES IN MUSIC

52:020. Exploring Music- $\mathbf{- 2}$ hrs.
To introduce the art of music to non-performers.
$52: 102(\mathrm{~g})$. Foundations of Music- -3 hrs.
Specifically designed to provide the classroom teacher with techniques for teaching music in his or her own classroom. Basic skills of guitar, piano, singing, and music theory explored. Study of appropriate music literature, records, tape, and film.

## APPLIED MUSIC

All students enrolled for applied music will participate in a weekly seminar in their principal applied area.
Individual Lessons
For each hour of credit the work in applied music requires one lesson a week for one semester. A student whose major is music may earn 3 hours of credit by taking 3 lessons a week. Two of these 3 hours may be in the same applied area (e.g., piano). The amount of credit to be carried will be determined at the time of registration. Applied music taken opposite student teaching earns 1 hour of credit by taking 2 lessons per week in that nine weeks. The head of this department assigns all students to specific instructors.
Beginning with the fifth semester of study, Bachelor of Music majors may earn 4 hours of credit per semester for 2 half-hour lessons per week in courses numbered from 54:130 to $54: 150$ and in their major area of applied performance. In addition, 1 hour of credit may be earned for 1 half-hour lesson per week in any secondary area.
The appropriate area faculty will determine the level of the student's qualifications (54:0xx or 54:1xx) by audition and/or previous work in an instrument or voice. Upon the recommendation of the appropriate area faculty, the head of the department may authorize that a graduate student be enrolled for credit in applied music at the 200 level ( $54: 2 \times x$ ). A 200 number can be assigned only to a graduate student who has passed a satisfactory audition and is preparing for a graduate major in voice or an instrument.

52:015, 52:115. Band<br>52:016, 52:116. Jazz Band<br>52:017, 52:117. Orchestra.<br>52:018, 52:118. Music Theatre

52:221. Music Research and Bibliography-2 hrs.
To help locate a thesis topic and acquaint the student with source materials in music. Should be taken during the first semester in residence by all graduate students in music.

## 52:299. Research.

See pp. 75, 209.

$\mathbf{5 4 : 0 3 0}, 54: 130(\mathrm{~g}), 54: 230$. Flute<br>54:031, 54:131(g), 54:231. Oboe<br>54:032, 54:132(g), 54:232. Clarinet<br>54:033, 54:133(g), 54:233. Bassoon<br>54:034, 54:134(g), 54:234. Saxophone<br>$\mathbf{5 4 : 0 3 5}, 54: 135(\mathrm{~g}), 54: 235$. French Horn<br>54:036, 54:136(g), 54:236. Cornet-Trumpet<br>54:037, 54:137(g), 54:237. Trombone<br>54:038, 54:138(g), 54:238. Baritone<br>54:039, 54:139(g), 54:239. Tuba<br>54:040, 54:140(g), 54:240. Percussion<br>54:041, 54:141(g), 54:241. Violin<br>54:042, 54:142(g), 54:242. Viola<br>54:043, $54: 143(\mathrm{~g}), 54: 243$. Cello<br>54:044, 54:144(g), 54:244. String Bass<br>54:045, 54:145(g), 54:245. Harp<br>$54: 046,54: 146(\mathrm{~g}), 54: 246$. Piano<br>54:047, 54:147(g), 54:247. Group Piano<br>54:048, 54:148(g), 54:248. Organ<br>54:049, 54:149(g), 54:249. Voice<br>54:050, 54:150(g), 54:250. Harpsichord

54:154(g). Applied Advanced Composition- $\mathbf{1 - 2}$ hrs.
For a student whose major applied area is composition. May be repeated for credit with permission of instructor. Prerequisite: 58:152 (Applied music fee applies.)
54:189. Senior Recital-no credit.
Required of all seniors.

## MUSIC METHODS

## 57:080. Basic Conducting-2 hrs.

Baton technique, score reading, rehearsal technique, and practice in conducting. Required of all music majors on teaching degree.

## 57:081. Instrumental Conducting and Materials

 -2 hrs .Advanced training in instrumental conducting with emphasis on orchestral and band scores and literature for small and large ensembles. Required of all instrumental music majors on teaching program. Prerequisites: 57:080; 58:052.
57:082. Choral Conducting and Materials- $\mathbf{2}$ hrs.
Training in choral conducting, rehearsal technics, performance practices, and choral materials. Required on the teaching degree for voice majors and those keyboard majors who do not take 57:081. Prerequisite: 57:080; 58:052.

## 57:090. Instrumental Techniques- $\mathbf{2 - 8} \mathbf{~ h r s . ~}$

Areas: flute, clarinet and saxophone, double reeds, high brass, low brass, high strings, low strings, per-cussion-harp. Each area carries one hour of credit. Student may receive a maximum of 8 hours credit, but may not repeat any area for additional credit.
57:110(g). Guitar in the Classroom-2 hrs.
For potential teachers of elementary and junior high school music; fundamentals of guitar and basic materials necessary to the effective use of the guitar in the classroom. No previous guitar experience required; basic music background desirable.
57:116(g). Instrumental Jazz Improvisation-1 hr.
Elements of improvisation which are currently practices in the various styles of jazz. Intended as an aid to experienced instrumentalists who desire greater proficiency in this area, and as a tool for the potential instructor of school jazz ensembles. Prerequisite: consent of instructor.
57:181(g). Vocal Ensemble Materials-2 hrs.
Offered for vocal majors. To accompany student teaching.
57:183(g). Opera Production-2 hrs.
May be taken two times for credit; however, only two hours will apply toward the Bachelor of Arts degree and only four hours toward the Bachelor of Music degree. One semester the student directs a scene and the other the student participates as a performer.
57:184(g). Vocal Pedagogy-2 hrs.
Techniques of diagnosing and discussing vocal problems as related to the singing voice, and a survey of pedagogic materials. Actual teaching experience under supervision. Prerequisite: junior standing music major or above.
57:185(g). School Stage Band- 2 hrs.
Materials, procedures, and techniques of developing a stage band program in the schools.
57:188(g). Accompanying- 1 hr .
The art of accompanying, both vocal and instrumental literature. Practical experience as accompanist for student soloists in public performance. May be taken twice for credit.

57:190(g). Music for the Exceptional Child- $\mathbf{3}$ hrs.
Designed for special education and music majors relating to the areas of mental retardation, culturally deprived and emotionally disturbed children. Field experience supplements classroom instruction.
57:192. Music Methods-4 hrs.
Overview of the total music education program in public schools. Detailed consideration of the general music program in elementary and secondary schools.
57:193(g). Piano Methods- 2 hrs.
Procedures and techniques of piano instructio especially for the beginning and intermedias student. These include the study and techniques of piano playing, the literature of the instrument, and the styles of the various periods.
57:194(g). Band-Orchestra Methods- 2 hrs .
Comprehensive study of role of band and orchestra conductor in public schools, covers areas of organization, personnel, budgets, scheduling, rehearsal procedures, program planning, and marching band arrangement.
57:195(g). Band and Orchestra Materials-2 hrs.
Study of instruction and program materials for private and class instruction, and small and large instrumental groups.
57:196(g). Advanced Music Methods- 2 hrs.
Contemporary methods of teaching general music, grades 1-12; intensive study of selected areas important to the music teacher.
57:197(g). Instrumental Upkeep and Repair-2 hrs.
A laboratory course where practical projects are undertaken. Offered for instrumental majors. To accompany student teaching.
57:198. Independent Study.
See pp. 57, 75.
57:250. Projects in Music-1-3 hrs.
57:280. Planning and Supervision-2 hrs.
For the prospective supervisor of music.

## 57:281. Seminar in Chorus-2 hrs.

Problems in the vocal program of junior and senior high schools.
57:283. Seminar in General Music--2 hrs.
The study of practical situations in the generd music program with special emphasis on grades ony through nine.
57:290. Seminar in Band- $\mathbf{2}$ hrs.
For the student with teaching experience. Practical situations studied and analyzed.

## 57:291. Seminar in Orchestra-2 hrs.

To implement the orchestral program in the elementary and secondary schools.
57:292. Psychology of Music-2 hrs.
The psychological basis of teaching music. May be used to satisfy the special methods elective in the professional core for the master's degree.

## MUSIC THEORY

8:050. Harmony 1-2 hrs.
Elementary theory. Rhythmic dictation. Melodic dictation. Sight singing, part writing, and figured basses. Keyboard harmony.
58:051. Harmony II- $\mathbf{2}$ hrs.
Continuation of 58:050.
58:052. Harmony III-2 hrs.
The contrapuntal-harmonic style of the eighteenth century. Continued ear training and keyboard drill, but more. emphasis on written theory. Continuation of $58: 051$.
58:053. Harmony IV-2 hrs.
Continuation of 58:052 with the addition of some nineteenth century style practices.
58:055. Ear Training and Sight Singing I-1 hr.
58:056. Ear Training and Sight Singing II-1 hr.
58:057. Ear Training and Sight Singing III-1 hr.
58:058. Ear Training and Sight Singing IV-1 hr.
$5 \% 150(\mathrm{~g})$. Eighteenth Century Counterpoint- $\mathbf{2}$ hrs. Contrapuntal techiniques and instrumental forms of the eighteenth century. Prerequisite: 58:052.
58:151(g). Sixteenth Century Counterpoint- $\mathbf{3}$ hrs.
The vocal polyphonic style of the sixteenth century. Analysis. Creative work in vocal forms: motet, madrigal, mass. Prerequisite: 58:052.
58:152(g). Composition- 3 hrs.
Creative work in the primary forms. Prerequisite: 58:052.
58:153(g). Instrumentation and Arranging-2 hrs. Ranges, transpositions and functions of all instruments of the band and orchestra, and arranging for choir, band, and orchestra. Prerequisite: 58:052.
$58154(\mathrm{~g})$. Applied Advanced Composotion.
See 54: $154(\mathrm{~g})$.
58155(g). Form and Analysis-2 hrs.
Simple homophonic forms, variation and rondo forms, sonata-allegro form and the various forms found in the symphony, concerto, and tone poem.
$58156(\mathrm{~g})$. 20th Century Non-Tonal Music- $\mathbf{2}$ hrs.
Style and structure analyses of representative compositions of the 20th Century with emphasis on the more recently composed works.
$58: 180$. Theory Survey -3 hrs.
58:252. Advanced Composition- $\mathbf{3}$ hrs.
Creative work in the larger forms. Student must complete at least one original project in any of these forms. Prerequisite: 58:152.

## 58:253. Advanced Arranging-2 hrs.

Scoring for orchestra, band, or chorus. Student must complete at least one transcription for a large instrumental or vocal group. Prerequisite: 58:153.

## MUSIC LITERATURE

59:170. History of Music 1-3 hrs.
From classical antiquity to the beginning of the nineteenth century. Prerequisite: 52:020.

## 59:171. History of Music II-3 hrs.

From Beethoven to the present day. Prerequisite: 52:020.
59:172(g). Music History-American-3 hrs.
History and literature of our music from 1620 to the present. Prerequisite: 59:171.
59:174(g). History of Opera-2 hrs.
Survey of opera from its inception through the new trends of the 20th century.
59:175(g). Music History-Baroque- $\mathbf{3}$ hrs.
The early, middle, and late Baroque periods in Italy, the Netherlands, Germany, France, Spain, England. Prerequisite: 59:171.
59:176(g). Music Literature-Contemporary-3 hrs. Principal styles and trends in the twentieth century. Prerequisite: 59:171.
59:178(g). Performance Literature in -2 hrs.
A combination ensemble-literature course for the performer. A study in depth of the music literature available for a specific instrument or related areas. The area to be covered will be included in the Schedule of Classes.
59:182(g). Voice Repertoire- $\mathbf{2}$ hrs.
Vocal literature for all voices. Primarily for those interested in teaching singing.
59:260. History of Musical Instruments- $\mathbf{3}$ hrs.
The development of musical instruments from antiquity to the present day with emphasis on the function or use of all important changes.
59:270. Music History-Renaissance- $\mathbf{3}$ hrs.
Western music to about 1600. Prerequisite: 59:171.

## Philosophy and Religion

T. Thompson, Head. Amend, Bluhm, *Crownfield, Fox, Hallberg, D. Morgan, J. Robinson.
*on leave
RELIGION MAJOR-TEACHING
Required: 64:020; 64:117; 64:124; 64:190 ..... 12 hours
Required: two of the following - 64:130; 64:132; 64:134 ..... 6 hours
Required: one of the following - 64:112; 64:142; 64:111 ..... 3 hours
Electives in Religion ..... 3-9 hours
Electives in related fields (up to 6 hours may be in philosophy, or, with permission of student's adviser, in any related course from another department) ..... 6-0 hours
30 hours
It is strongly recommended that $\mathbf{6 8 : 0 2 1}$ and $\mathbf{6 8 : 0 2 2}$ be taken to fulfill General Educationrequirements.
Pending recognition of teaching about religions in the secondary school as a teaching field bythe State Department of Public Instruction, students cannot graduate from this institution with theReligion Major-Teaching as their only major. At present, the student must combine the ReligionMajor-Teaching with another major in an area approved by the State Department as a teachingfield. The Department of Philosophy and Religion is in the process of bringing a proposal to theState Department of Public Instruction for the establishment of certification standards for teachingabout religions in the public schools.
It is recommended that a candidate for this major consider a double major with English,history, sociology, or anthropology as the second major. As a minimum, a minor in one of thesefields is strongly recommended.
PHILOSOPHY MAJOR
Required: three of the following: 65:100; 65:103; 65:101; 65:104 ..... 9 hours
Required: 65:145 ..... 3 hours
Electives in philosophy ..... 18 hours
30 hours
RELIGION MAJOR
Required: 64:124; 65:113 ..... 6 hours
Required: one of the following: 64:130; 64:132; 64:134 ..... 3 hours
Electives in religion ..... 15-21 hours
Electives in related fields ..... 6-0 hoursUp to 6 hours may be in philosophy, or with permission ofstudent's advisor, in any related course from anotherdepartment.
PHILOSOPHY AND RELIGION MAJOR
Required: 64:124; 65:145 ..... 6 hours
Electives* ..... 24 hours
30 hours
*At least 6 hours shall be in philosophy, and at east 6 hours shall be in religion; the remaining 12 hours may be in either philosophy or religion courses, but of these 12 hours up to 6 hours
may, with the consent of the student's adviser, be in related courses from any department in the university.

## PHILOSOPHY MINOR

Required: 65:021; 2 courses in history of philosophy series; and 6 hours of electives in philosophy
15 hours

## RELIGION MINOR

Required: 64:020; 64:124; and 9 hours of electives in religion, which may include 65:113<br>15 hours

## PHILOSOPHY

65:021. Introduction to Philosophy- $\mathbf{3}$ hrs. $\mathbf{6 5 : 1 0 0}(\mathrm{g})$. History of Philosophy-Ancient-3 hrs. The history of philosophy from the Pre-Socratics to late antiquity, with emphasis on Plato and Aristotle. 65:021 strongly recommended to precede.
65:101(g). History of Philosophy: Medieval- $\mathbf{3}$ hrs.
The history of philosophy from late Roman times through the Middle Ages, with emphasis on Augustine and Thomas Aquinas. 65:021 strongly recommended to precede.
65:103(g). History of Philosophy: Renaissance through Enlightenment-3 hrs.
The history of philosophy from The Renaissance through Hume, with emphasis on continental rationalism and British empiricism. 65:021 strongly recommended to precede.

History of philosophy from Kant to the present; emphasis on idealism, romanticism, materialism, positivism, phenomenology, existentialism. 65:021 recommended to precede.
65:113(g). Philosophy of Religion- $\mathbf{3}$ hrs.
Introduction to the philosophical examination of religions ideas. Strongly recommended that some work in philosophy or religion precede this course.

## $\mathbf{6 5 : 1 1 7}$ (g). Philosophers on Education- $\mathbf{3}$ hrs.

Study of the major philosophical approaches to education, as exemplified in idealism, realism, pragmatism, and analytic philosophy.
$65: 119(\mathrm{~g})$. Philosophy of Science- $\mathbf{3}$ hrs.
Philosophical problems of the sciences; nature of laws and theories, causation, explanation and scientific method, and the relation between the natural and social sciences.
$65: 142(\mathrm{~g})$. Ethics -3 hrs .
A study of the major problems of moral conduct, with emphasis on contemporary ethical theories.
65:143(g). Aesthetics- $\mathbf{3}$ hrs.
Problems of experiencing and interpreting the arts presented through readings and discussion of the various arts.

## 6:145(g). Logic- 3 hrs.

Methods, principles, and rules of reasoning with emphasis upon their practical uses in effective thinking, scientific inquiry, and verbal communication.

## 65:150(g). Recent and Contemporary Philosophy

 -3 hrs.A study of selected individuals and issues reflecting a variety of approaches to current philosophical questions. 65:021 strongly recommended to precede.
65:152(g). Existentialism-3 hrs.
A study of interpretations of human existence in contemporary thought. Presupposes no previous knowledge of philosophy.
65:154(g). American Philosophy-3 hrs.
Major developments in American philosophy from their colonial origins to their contemporary expressions.
65:160(g). John Dewey-3 hrs.
Study of Dewey's pragmatism as expressed in the fields of ethics, religion, education, society, and theory of knowledge.
65:170(g). The Present Predicament of Mankind -3 hrs .
Exploration of certain societal trends which are posing a serious challenge to man's future; examination of human values and resulting institutional arrangements through which the values are expressed; consideration of alternatives.
65:186(g). Studies in Philosophy- $\mathbf{3}$ hrs.
Study of philosophical thinker or problem to be announced in advance of registration.
65:18\%(g). Individual Readings in Philosophy -1.3 hrs .
Individually arranged readings and reports drawn from (1) history of philosophy, or (2) contemporary philosophical problems. Repeatable for a maximum of 6 hours. Prerequisite: department head approval.

## RELIGION

64:020. The Heritage of the Bible- $\mathbf{3}$ hrs. A non-sectarian study of the Bible.
64:030. What is Religion?- $\mathbf{3}$ hrs.
Basic forms and views of religious phenomena. such as encounter, tradition, ritual, community. divine law, meditation, mysticism, response to lifecrisis, and personal growth or fulfillment.
64:111(g). Christian Beliefs- $\mathbf{3} \mathbf{h r s}$.
The meaning of major Christian doctrines, with some attention to their origins but primarily from an interpretive rather than historical point of view.

64:112(g). History of Christianity- $\mathbf{3}$ hrs.
An historical survey, with special attention to the development of major religious ideas and institutions in Western Christianity.

64:117(g). Religion in America-3 hrs.
Investigation of religious movements and beliefs from colonial times to the present. Recommended to precede this course one of the following: 64:020; 64:124; 65:021.
64:124(g). Religions of the World- $\mathbf{3} \mathbf{~ h r s . ~}$
Living religions of man with emphasis on their relevance to interpretations of existence, the problem of meaning and values, and human destiny.
64:130(g). Religions of India- 3 hrs.
Hinduism, Jainism, Buddhism, Islam.
64:132(g). Religions of China and Japan-- 3 hrs.
Taoism, Confucianism, Buddhism, Shintoism.
64:134(g). Religions of the Near East-3 hrs.
A study of the origin and early history of Judaism,
Christianity, and Islam, including the examination of ancient Egyptian, Mesopotamian, and GraecoRoman religions. 64:124 strongly recommended to precede.
64:139(g). Atheism- 3 hrs .
A critical introduction to various types of modern atheism.

64:141(g). Old Testament-3 hrs.
Introduction to the history and ideas of the Old Testament. Prerequisite: 64:020.
64:142(g). New Testament-3 hrs.
An introduction to the history and ideas of the New Testament. Prerequisite: 64:020.
64:150(g). Contemporary Religious Thought-3 hrs.
A study of selected individuals and ideas in 20th century religious thought.
64:152(g). Religion and Public Education-2 hrs.
Issues, problems, and curricula development in studying about religion in the public school.
64:186(g). Studies in Religion- $\mathbf{3}$ hrs.
Study of special topic to be announced in advance of registration.
64:189(g). Individual Readings in Religion- $1-3$ hrs. Individually arranged readings and reports from (1) Biblical studies, (2) history of religions, or (3) contemporary religious thought. Repeatable up to 6 hours. Prerequisite: department head approval.
64:190. The Teaching of Religion- $\mathbf{3}$ hrs.
Methods and techniques for securing and presenting knowledge in teaching about religion. Application tô teaching stressed as well as careful examination and preparation of curricula materials.

## Speech

Hall, Head. F. Conklin, Edelnant, C. Eilers, G. Glenn, Graves, M. Jensen, Jenkins, King, McDavitt, Maberry, Meinert, C. Nelson, Neumann, Scholz, Skaine, M. Smith, Stone, Sweet, Vernier, L. Wagner, T. Williams, S. Wood.

## SPEECH MAJOR-TEACHING

> Required: 50:030 or 50:139; 50:031; 50:035;
> 50:053; 50:144; 50:154; 50:193
> 20 hours
> Plus one of the following emphases for ................................................. 15-17 hours
> 35-37 hours

## Emphases:

Communication-
Required: 50:164; 50:165 .................................................................................... 6 hours
Required: 50:198 ............................................................................................. . . . 1 hour
Electives: a minimum of 3 hours from 50:034, 50:060,
$50: 139,50: 143,50: 162$; and a maximum of 6 hours from 15:050, 15:160, 15:165, 29:102, 40:009 (Social Processes), 40:009 (Perceptual Processes), 62:164; 66:032; 98:100,
98:101, 98:085-to make a total of
Interpretation-Required: 50:055; 50:112; 50:113; 50:11411 hours
Required: 50:198 1 hour
Electives in speech ..... 3-4 hours
15-16 hours
Public Address-
Required: *50:030 or 50:139 3 hours
Required: 50:011 or 50:111 or 50:198 1 hour
Electives from: 50:032; 50:060; 50:100; 50:131; 50:140;
50:143; 50:145; 50:165; 50:194 ..... 11-12 hours
15-16 hours(*Both 50:030 and 50:139 are required to complete themajor with this emphasis.)
Theatre-Required: 50:055; 50:141; 50:142; 50:148; 50:150;$50: 130$ or $50: 153$ or $50: 114$17 hours

The student who chooses a teaching major in speech must also complete a teaching minor. The student is expected, also, to participate in organized co-curricular activites as directed by his adviser. Permission to continue as a speech major will be based, in part, upon the student's record in co-curricular participation.

## SPEECH MAJOR

Required: courses in speech (excluding 50:026, 50:130, 50:193, 50:194)
32 hours
At least nine (9) hours must be from speech courses numbered 100 or above.

## Radio-TV Emphasis:

Required: 50:055 or 50:032; 50:018; 50:060; 50:061; 50:062;
50:072; 50:121; 50:120; 50:161; 66:032
29-30 hours
Electives from: 50:012; 50:019; 50:030; 50:031; 50:034; 50:075; 50:139; 50:153; 50:156; 50:169; 62:035; 66:040; 66:132 15 hours 44-45 hours
A student must obtain a Radio-Telephone Third Class License with Broadcast endorsement to graduate with this major.

## Theatre Emphasis:

Required: 50:053; 50:055; 50:141; 50:142; 50:148; 50:150;
$50: 154 ; 50: 153$ or $50: 114$
24 hours
Electives: *a minimum of 30 hours
54 hours
*May be taken from the remainder of theatre courses. Twelve (12) hours of electives may be taken from departmentally approved courses. Twelve (12) hours must be taken in courses numbered 100 or above.

## SPEECH MINOR-Teaching

Required: 50:030 or 50:139; 50:031; 50:035; 50:053; 50:144;
50:154; 50:193
20 hours

## SPEECH MINOR

Required: *elective courses in speech (excluding 50:026; 50:061;
50:130; 50:193; 50:194)
18 hours
*Not less than six (6) hours must be from courses numbered 100 or above.

## APPLIED SPEECH

A student may earn a maximum of 4 semester hours of credit applicable toward a baccalaureate degree for participation in Theatre or in a combination of Theatre and Forensics. Not more than 2 hours in Forensics may be applied toward a baccalaureate degree. Permission for credit is determined by the director of the activity. Not more than 1 hour may be earned in one semester. Credit is not available in the summer.

50:010; 50:110(g). Applied Theatre-1 hr.
Practical work on theatre productions. A maximum of 4 hours credit may be earned.
50:011; 50:111(g). Applied Forensics-1 hr.
A maximum of 2 hours credit may be earned.
50:012. Applied Broadcasting-1 hr.
Credit available for qualified students who work on campus radio station, KCRS. Prerequisite: instructor's approval.
50:018. Broadcasting: Production, Performance, and Programming- $\mathbf{3}$ hrs.
Introductory course in performance and production with emphasis on radio. Prerequisites: 50:060; 50:026 or instructor's approval.
50:019. Radio: Third-Class License Preparation -1 hr .
Requirements to obtain the Radio-Telephone Third Class License with Broadcasting Endorsement.
50:020. Introduction to Theatre- $\mathbf{3}$ hrs.
The place of theatre and drama in the life of man, with a critical appreciation of the various arts and skills involved. Emphasis on the creative function of the audience.

## $\mathbf{5 0 : 0 2 6}$. Fundamentals of Speech- $\mathbf{3}$ hrs.

Concepts and processes involved in speech communication with emphasis on, but not limited to, public speaking. Designed for individual who has little training in speech communication.
50:030. Public Speaking- $\mathbf{3}$ hrs.
Application of the principles of psychology, sociology, political science, and composition to situations confronting the public speaker. Prerequisite: 50:026 or equivalent.
50:031. Oral Interpretation- $\mathbf{3} \mathbf{h r s}$.
Introduction to the analysis and presentation of poetry, prose, and drama.
$50: 032$. Voice and Diction- $\mathbf{3}$ hrs.
Study and practice in voice and diction to develop superior vocal and articulatory skill.
50:034. Human Communication- $\mathbf{3}$ hrs.
Explanation and experiences in forms, potentials, and problems on human expression. Discussion, 3 periods; lab., 1 period.
50:035. Problems in Interpersonal Communication -1 hr .
Experiences and insight into one-to-one human communication.
50:051. Graphic Techniques for Theatre-2 hrs. Fundamentals of graphics for theatre design. Laboratory, 4 hrs .

## 50:053. Theatre Practice- 4 hrs.

Fundamentals of scene and costume construction and lighting. Requires work on technical crews for current productions. Discussion, 3 periods; lab., 4 periods.

## 50:055. Performing Voice- 2 hrs.

Practical work in developing the voice for performance situations.
50:060. Fundamentals of Broadcasting- 3 hrs.
Survey of development and organization of the radio-television industry.
50:061. Television Production I-3 hrs.
Studio experiences in directing and producing television programs. Prerequisites: 50:161 and 50:018.
50:062. Television Performance- $\mathbf{3}$ hrs.
Development of understanding and skills needed for effective television performance. Prerequisite 50:018.
50:072. Beginning Fiction Film Production- $\mathbf{3}$ hrs.
Production techniques and creative processes of film making.

## 50:075. Silent Film History- $\mathbf{3}$ hrs.

Development of professional motion picture production from beginning to the sound era through an examination of selected films, research, lectures and discussion. Prerequisite: 50:072 or instructor's approval.
$\mathbf{5 0 : 1 0 0}(\mathrm{g})$. Introduction to Rhetorical Theory- $\mathbf{3}$ hrs.
A systematic examination of rhetorical theory and its place in spoken and written discourse; development of an understanding of the functions of rhetoric; and an introduction to terms and concepts of rhetorical theory.
50:101(g). Communication in Education- $\mathbf{2 - 3} \mathbf{h r s}$.
Exploration of new methods and avenues of communication in teaching. Offered opposite student teaching. May not be counted in meeting requirements of a major or minor in Speech.
50:112(g). Advanced Interpretation of Poetry- $\mathbf{3}$ hrs.
Analysis of the meaning and structure of poetry and application of the analysis in the oral communication of poems by selected writers. Prerequisite: 50:031.
50:113(g). Advanced Interpretation of Prose- $\mathbf{3}$ hrs.
The meaning and structure of narrative prose and application of analysis in the oral communication of prose fiction. Prerequisite: 50:031.
$\mathbf{5 0 : 1 1 4 ( g ) . ~ A d v a n c e d ~ I n t e r p r e t a t i o n ~ o f ~ R e a d e r s ~}$ Theatre- $\mathbf{3}$ hrs.
Introduction to basic forms of staging and adapting
poetry, prose, and drama with emphasis on directing group presentations. Prerequisite: 50:031.

## 50:120. Broadcast Management-2 hrs.

Essentials of broadcast management; includes study in educational and commerical broadcasting and C.A.T.V. Prerequisite: 50:018; 50:060.

## 50:121. Television Production II-4 hrs.

Laboratory experience in writing, producing, and directing feature length television programs. Prerequisites: 50:061; 50:062; 50:072.
50:130(g). Creative Dramatics for Children- $\mathbf{3}$ hrs.
Prepares students to guide children in creative drama. Study of the art of spontaneous drama as it relates to the development of the child.

## 50:131(g). Speech Composition- $\mathbf{3}$ hrs.

Composition and presentation of manuscript speeches with special emphasis on style and attention of rhetorical examples and methods of criticism. Prerequisite: 50:030.
$50: 134(\mathrm{~g})$. Theatre for Children- $\mathbf{3}$ hrs.
Reading of children's plays and discussion of production problems related to staging of children's theatre.

## 50:135(g). Creative Drama Practicum- $\mathbf{3}$ hrs.

Experience in learning to adapt materials for spontaneous drama and experiment with techniques of guidance in an actual classroom situation, under the supervision of the classroom teacher and the instructor of the course. Prerequisite: 50:130.
50:139. Principles of Discussion- $\mathbf{3}$ hrs.
Principles of small group speech communication with emphasis on and experience in task/decision oriented groups.
50:140(g). Persuasion- 3 hrs.
Examination of relationships between speech communication and change in belief/action patterns; emphasis on study of drives, motives, and attitudes as these are influenced by speech. Prerequisite: 50:030.
$50: 141(\mathrm{~g})$. History of the Theatre $\mathbf{1}-\mathbf{3}$ hrs.
Examination of plays, production methods, and historical trends in the theatre from the beginnings to the Restoration.
$50: 142(\mathrm{~g})$. History of the Theatre II- $\mathbf{3}$ hrs.
Examination of plays, production methods, and historical trends in the theatre from the Restoration to 1900. Prerequisite: 50:141.

## $50: 143(\mathrm{~g})$. Advanced Discussion- $\mathbf{3}$ hrs.

Explores problems involved in small group discussion through examination of reported experiments and literature in the field. Prerequisite: 50:139.
50:144. Debate- $\mathbf{3}$ hrs.
Examination in detail of theories of argumentation and debate, emphasizing evidence and reasoning. Prerequisite: 50:026 or equivalent.
$50 .{ }^{145(g)}$. Argumentation- 3 hrs .
Advanced study in theory and methods of argumentation. The student will study the ethical, logical, and evidential contributions of various authors to argumentation theory.

50:147(g). History of the Theatre III- $\mathbf{3}$ hrs.
Examination of plays, production methods, and historical trends in the theatre from 1900 to the present.

## 50:148(g). Theatre Aesthetics- $\mathbf{3}$ hrs.

Theories of the theatre arts. For theatre-emphasis students. To be taken in junior or senior year.
50:150(g). Stage Costume I-3 hrs.
Discussion, 3 periods; lab., 3 periods. Basic principles of stage costume design and construction, with emphasis on educational theatre.
50:151. Theatre Design I-3 hrs.
Design theory as applied to the theatre. Analysis of selected scripts to develop design concepts in scenery, costume and lighting. Prerequisite: 50:051 or consent of instructor.

## $50: 152(\mathrm{~g})$. Directing II- $\mathbf{3}$ hrs.

Advanced problems in directing. Each student will stage a one-act play for public presentation. Discussion, 3 periods; lab., 3 periods. Prerequisite: 50:154.
50:153. Acting I- 3 hrs.
Fundamentals of acting, stressing the basic skills and techniques of the body and voice.
50:154. Directing I-3 hrs.
Analysis of plays and fundamentals of directing. Prerequisite: 50:053.
50:155(g). Acting II- $\mathbf{3}$ hrs.
Application of the sxills and techniques of Acting I to more advanced work in the various styles of acting. Prerequisite: 50:153.
50:156. Lighting Design- $\mathbf{- 3}$ hrs.
Perception and use of light as a design medium with concentration on its use in stage, television, and film production. Discussion, 2 periods; lab., 2 periods. Requires work on productions.
$50: 157(\mathrm{~g})$. Stage Costume II- -3 hrs .
Advanced study of historic dress and realistic design; an investigation and practice in highly theatrical design.
50:158. Makeup- 2 hrs.
Basic techniques and materials of makeup for the stage.
50:160(g). Playwriting- $\mathbf{3}$ hrs.
Prerequisite: consent of instructor.
50:161. Radio-Television Writing- $\mathbf{3}$ hrs.
Writing for broadcast purposes, covering continuity, advertising, news, news analysis, documentaries, and special features. Prerequisite: 50:018; 62:003 or consent of instructor.
50:162(g). Conference Techniques and Interviewing- $\mathbf{3}$ hrs.
Communication concepts and techniques for conferences, small group meetings, and interviews common to business settings.
50:163(g). Business and Professional Oral Communication- $\mathbf{3}$ hrs.
Communication concepts and techniques for reporting and persuasive presentations in decision making situations.

## 50:164(g). Dimensions of Interpersonal <br> Communication- 3 hrs.

Bases, applications, and implications of interpersonal communication. Prerequisite: 50:034 or 50:035.

50:165(g). Experiemental Research in Speech-3 hrs. Introduction to research studies and quantitative research procedures. Three emphasis areas: (1) Communications; (2) Persuasion; (3) Theatre. Credit may be earned by taking different sections, but not by repeating the same section.
50:167(g). Theatre Design II-3 hrs.
Continuation of $50: 151$; emphasis on scripts suitable for highly stylized design concepts, including avant-garde, contemporary scripts and presentational forms. Discussion, 2 periods; lab., 2 periods. Prerequisite: $\mathbf{5 0 : 1 5 1}$ or consent of instructor.
$50: 168(\mathrm{~g})$. Theatre Management- $\mathbf{3}$ hrs.
An intensive study of business practices in the academic, community, and commercial theatre. Field trips and guest lectures to be included.
50:169. Radio-Television Internship-4 hrs.
Intensive experience in a campus or community radio-television facility. Prerequisite: departmental approval.

## $50: 180(\mathrm{~g})$. Scene Painting- $\mathbf{3}$ hrs.

Practicum in traditional scenic art, covering base coating, scumbling, stenciling, texturing, and the use of bronze powder, varnish, aniline, dyes, and a variety of other techniques and materials. Lab., 8 periods. Prerequisite: 50:051 or consent of instructor.
50:182(g). Stage Fight Choreography- $\mathbf{3}$ hrs.
Basic skills of modern and historic styles of fencing, swordplay, and other modes of fighting, and application of these skills to the planning and safe execution of an effective and artistic stage fight.
50:188. Parliamentary Procedure- $\mathbf{2}$ hrs.
Study of the rules of order which govern the proceedings of organizations in a democratic society.
50:189(g). Readings in Theatre- $\mathbf{3}$ hrs.
Intensive investigation of a theatre style, form, period, or concept. May be repeated for a maximum of 6 hours. Prerequisite: Instructor approval.
$50: 193(\mathrm{~g})$. Teaching of Speech- $\mathbf{3}$ hrs.
Credit also as a course in educiton for a student whose major is speech. Prerequisite: 12 hours of speech. Strongly recommended that this course precede student teaching.
$50: 194(\mathrm{~g})$. Method of Directing Forensics- 2 hrs .
Credit also as a course in education for a student whose major is speech.
50:198. Independent Study.
50:205. Interpersonal Communication- 3 hrs .
Synthesis of psychological, sociological, philosophical analysis of person-to-person communication.

50:212. Speech Criticism- 3 hrs .
Comparison of theories of criticism and their ap-
plication to selected speeches.
$\mathbf{5 0 : 2 2 5}$. Bibliography and Methods of Research -3 hrs .
50:230. Psychology of Speech- $\mathbf{3}$ hrs.
The analysis of speech communication as a behavior phenomenon. Topic emphasis to be used a
on professional interest of class.

50:240. Classical Rhetoric- $\mathbf{3}$ hrs.
Ancient rhetorical theory; emphasis on works of Aristotle, Cicero, and Quintilian.
$50: 241$. British and American Rhetoric- 3 hrs.
Rhetorical trends from 17th century to the present; examination of works of major rhetoricians.
50:242. British and American Public Address- 3 hrs. Study of major speakers and movements. Offered in three sections.
(1) British Public Address
(2) American Public Address to 1865
(3) American Public Address, 1866 to the Present.

Additional credit may be earned by taking different sections, but not by repeating the same section.
$\mathbf{5 0 : 2 5 1}$. Problems in Theatre Design- 3 hrs .
Study of auditorium design: design of scenery, lighting, costumes, and props for different types of auditorium design and different types of staging. Prerequisite: approval of instructor.
50:273. Projects in Speech-1-3 hrs.
May be repeated for a total of 3 hours credit. Approval of departmental committee must be obtained before registration.
50:283. Seminar in Teaching Speech- $\mathbf{3}$ hrs.
Emphasis on (1) problems related to organizing and teaching speech courses in the public schools, (2) directing of extra-curricular speech activities, and (3) teaching speech at the college level. May be repeated for a maximum of 6 hours.
50:285. Seminar in Public Address- $\mathbf{3}$ hrs.
Class interest determines whether the emphasis yill be upon (1) persuasion, (2) rhetoric, or (3) defite and discussion. May be repeated for a maximumi of 6 hours.
50:287. Seminar in Interpretation- $\mathbf{3}$ hrs.
Section 1, Historical developments of oral interpretation from Sheridan and Walker, to preseat. Section 2. Contemporary theories of teaching ofal interpretation. May be repeated for a maximum of 6 hours.

50:288. Seminar in Scene Design- $\mathbf{3}$ hrs.
History and theory of scene design. Laboratory. Prerequisite: 50:053 and 50:151.
50:289. Seminar in European Theatre- $\mathbf{3}$ hrs. Specialized study in some aspects of Europein theatre history and dramatic literature. Prerequisite: 50:142.
502999. Seminar in American Theatre- $\mathbf{3}$ hrs. specialized study in some aspects of American theatre history and dramatic literature. Prerequisite: consent of instructor.
502299. Seminar in Stage Interpretation of

Selected Plays- $\mathbf{3}$ hrs.
specialized study of prompt-scripts and stage histories of selected plays. Prerequisite: consent of instructor.

# Speech Pathology and Audiology 

R. Eblen, Head. Beykirch, Boots, J. Harrington, Highnam, Rooney, R. Schwartz.
SPEECH PATHOLOGY MAJOR-TEACHING
Recommendation for certification is made only upon completion of the graduate program described on page 227.
Required: 51:010; 51:105; 51:106; 51:111; 51:125; 51:127; 51:135; 51:150; 51:155; 51:156; 51:165; 51:196; 51:195 37 hours
Required in physics: 88:008 ................................................................... 3 hours
Required in educational psychology: 25:180 ................................................. 3 hours 43 hours

The completion of the undergraduate major or its equivalent will be considered adequate preparation for the graduate portion of the program. Deficiencies in undergraduate preparation must be made up before the student can begin his graduate sequence in speech pathology.

51:010. Introduction to Pathology of Speech and Hearing- 2 hrs.
51:101(g). Speech Correction for the Classroom Teacher- $\mathbf{3}$ hrs.
The role of the classroom teacher in dealing with speech and hearing problems. Information on identification, causes, personality problems, referrals, and remediation procedures. Not to be taken by studenis majoring in Speech Pathology.
51:105(g). Anatomy and Physiology of Speech Mechanism- 3 hrs.
Functional anatomy, physiology, and neurology of the speech mechanism.
51:106(g). Language Acquisition in Children- $\mathbf{3}$ hrs. Language in children from birth through age five. (The acquisition of the phonological, morphological. and syntactic systems of Standard English will be studied.) Theories of language learning will be studied as well as the effect of physiological, psychological, and environmental factors.
51:111(g). Practicum in Phonetics in Speech Pathology and Audiology- 2 hrs.
Transcription of the International Phonetic Alphabet with emphasis on the symbols for transcription of defects in articulation and voice as well as ethni- differences. Includes laboratory practice sessions.
51:125(g). Disorders of Articulation-3 hrs.
Normal and abnormal speech and language plus diagnosis and remediation of articulation problems. Prerequisite: 51:010.

## 51:127(g). Disorders of Language- $\mathbf{3}$ hrs.

Techniques for rehabilitation of language disorders. The mentally retarded and disadvantaged children will be considered as well as the language-delayed child in the normal classroom. Includes lectures, readings, discussion, and demonstrations. Prerequisite: 51:106 or instructor's approval.
51:130(g). Cleft Palate-2 hrs.
Etiology, nature and principles of remediation of speech problems resulting from cleft palate, and other structural facial deviations. Demonstration of applied techniques. Includes laboratory. Prerequisites: 51:125 or instructor's approval.
51:135(g). Introduction to Disorders of Voice- $\mathbf{3}$ hrs. Normal and abnormal human voice production. Etiology, diagnosis and treatment of organic and functional voice problems. To precede student teaching; open to Speech Pathology majors only. Prerequisite: 88:008.
51:140(g). Stuttering: Theory and Therapy $-\mathbf{2}$ hrs.
Etiology, nature, and therapy for disorders of rhythm in speech production. Prerequisite: 51:125 or instructor's approval.
51:150(g). Clinical Processes I, II, III-1 hr.
Introduction to role of speech pathologist as clinician; emphasis on analyses and observations of various therapies, culminating in a semester of participation as a aide in the Speech Clinic. Course divided into sequential, one-semester sections of 1 hour credit for each section (must be taken in
sequence): Sec. I, Analysis; Sec. II, Observation; Sec. III, Participation. Prerequisite to Sec. I: 50:010 or instructor's approval.
51:155(g). Clinical Practice- $\mathbf{1 - 2}$ hrs.
Clinical experience in diagnosis and remediation of the speech problems associated with disorders of articulation, cleft palate, stuttering, as well as experience in the testing of hearing. Prerequisite: $51: 125$ or instructor's approval. Must be repeated for a total of 4 hours of credit. Must be taken on "ungraded" (credit/no credit) basis.
51:156(g). Clinical Examination-3 hrs.
Theoretical and practical aspects of the evaluation process.
51:165(g). Introduction to Audiology- $\mathbf{3}$ hrs.
Types of hearing loss and audiometric measurement. Pertinent organic and psychological probiems. Prerequisite: 51:105.
51:175(g). The Acoustically Impaired- $\mathbf{3} \mathbf{~ h r s}$.
Philosophies and history of education of the acoustically handicapped. Relevant organic and psychological problems. Types of programs and vocational training. Introduction to rehabilitiation methods.
51:180(g). Current Problems in Speech Pathology and Audiology-2 hrs.
Major issues confronting clinicians, researchers, and training institutions. Seminar discussion topics to be determined by participants. Prerequisite: approval of instructor.
51:195(g). Methods in Speech Pathology-2 hrs.
Intensive investigation of the planning and conducting of speech pathology and audiology programs in appropriate clinical settings. Prerequisite: 51:125 or instructor's approval.
51:196(g). Research Methods in Speech Pathology and Audiology- 3 hrs .
Prerequisite: 25:180.
51:240. Aphasia- 3 hrs.
Diagnosis and remediation of aphasia in adults.
51:241. Dysarthrias-3 hrs.
Neurophysiological bases of cerebal palsy. Detailed study of specific dysarthric speech. Therapeutic procedures of Kabat, Fay, Rood, and Bobath.
51:255. Advanced Clinical Practice-1-4 hrs.
Clinical experience in diagnosis and remediation of the speech problems associated with aphasia, cerebral palsy, hearing loss, and disorders of voice. Prerequisite: $51: 155$. May be repeated for a total of 4 hours of credit.
51:258. Audiology Practicum-1-2 hrs.
Supervised clinical experience in auditory evaluation and training of the hearing impaired. May be repeated for a total of 6 hours credit. Prerequisite: Audiology major.
51:265. Pure Tone and Speech Audiometry-3 hrs.
Fundamental principles and clinical applications of pure tone and speech audiometry. Prerequisite: 51:165.

51:270. Anatomy and Physiology of the Auditory Mechanism-3 hrs.
Functional anatomy, physiology, neurology of the hearing mechanisms. Prerequisite: 51:165 or consent of instructor.

51:271. Advanced Auditory Tests- $\mathbf{3}$ hrs.
Application of pure tone and speech audiometry complex auditory problems and differential nostic question. Prerequisite: 51:265.
$\mathbf{5 1 : 2 7 2}$. Hearing Aids- $\mathbf{3}$ hrs.
Physical characteristics and clinical aspects of auditory amplifiers for the hearing impaired Prerequisite: 51:265.
51:273. Pediatric Audiology-2 hrs.
Development of auditory perception, auditory deprivation, tests and techniques with the neonate, infant, and child. Prerequisite: 51:265.

## 51:274. Community and Industrial Hearing

 Conservation-2 hrs.Discovery and prevention of hearing loss, public school and industrial hearing conservation, noise pollution and medico-legal problems. Prerequisite: 51:265.

## 51:275. Aural Rehabilitation- $\mathbf{3}$ hrs.

Speech reading, speech therapy, auditory training and oral language for the hard of hearing and deaf.
51:280. Individual Readings- $1-2 \mathrm{hrs}$.
Project must be approved before beginning of semester in which work is to be done. May be repeated. Prerequisite: approval of instructor and head of department.
51:289. Seminar in Audiology-2 hrs.
Advanced study of human auditory functions, audiometry or rehabilitation of the hearing imparied. Prerequisite: approval of instructor.
51:289. Seminar in Hearing-2 hrs.
51:289. Seminar: Differential Diagnostics- $\mathbf{2}$ hrs.
Advanced techniques in differential diagnostics, incorporating a multi-disciplinary approach. Opportunities will be provided to observe and administer appropriate evaluative materials.
51:295. Seminar in Speech Pathology-2 hrs.
Seminars in special topics to be announced in the Schedule of Classes. Prerequisite for each scheduled topic will be completion of major requiremers in that area. May be taken for a maximum of 5 hours as long as no topic is repeated.
51:299. Research.

## College of Natural Sciences

There are six instructional departments in the College of Natural Sciences. These are Biology, Chemistry, Earth Science, Industrial Technology, Mathematics, and Physics.

Majors and minors are available in all departments on both teaching and liberal arts programs leading to the Bachelor of Arts degree. In addition, students may major in science on both programs. This is an interdepartmental major and is offered under the general jurisdiction and the general supervision of the Dean of the College.

Since science education does involve the cooperation of a number of departments, a Science Education Coordinating Committee functions in promoting this cooperation. There are members on this committee from other colleges as well as from the departments in the College of Natural Sciences.

The degree of Bachelor of Technology may be earned with majors in the Department of Industrial Technology. This degree provides educational experience for those who wish to work as technologists in industry or as teachers in trade and technical schools.

There are graduate majors in all departments and in science and science education for students working for a degree of Master of Arts. A major in science education may be selected for the Specialist degree.

The College of Natural Sciences, in attempting to perform the basic academic functions of instruction, research, and service, has the following objectives and goals:

1) To prepare students for a variety of career opportunities in fields related to the disciplines of the departments.
2) To provide students with the background they will need to pursue professional goals further in other fields, such as medicine, dentistry, and engineering.
3) To provide students with the background they will need to pursue educational and professional goals further in the field of their major toward the advanced level of the doctorate.
4) To contribute to the general education of all students by relating the sciences, mathematics, and industrial arts and technology, particularly in specially designated courses, to other fields and to conditions and problems of society in general.
5) To engage actively in research, inquiry, and other creative endeavors which will complement the instructional program and make direct contributions to the academic disciplines and to society.
6) To provide service to schools and to other community agencies and organizations in the form of consultationms, specially designed courses and conferences, and regular programs of visitation in order that the on-campus expertise of the College will be shared with the off-campus world.
Departments are the essential units in the college organization that determine the above goals, the relative priorities given these goals, and the programs designed to meet them. Faculty members, students, administrators, and non-academic staff members are all involved in the planning and execution of the educational programs.

The career opportunities for graduates in the College of Natural Sciences are numerous and diverse. All departments offer programs for prospective teachers in elementary and secondary schools. Pepartmental offices are excellent sources of information about other careers.

A sampling of careers for which work in the College of Natural Sciences would prepare one might include: engineering assistant, horticulturist, computer programmer, industrial chemist, actuary, park naturalist, petroleum geogolist, automotive technologist, analytical chemist, phar-
maceutical salesman, food and drug inspector, and statistician. It should be emphasized that these are only representatives of many possibilities.

In addition, of course, many students take background work and go on in such professiond training programs as pharmacy, medicine, dentistry, mortuary science, engineering, and veterinary medicine. Others go on for advanced work leading to the doctorate in various specialized fields of mathematics, science, and technology.

The College of Natural Sciences is involved in a number of interdepartmental and intercot legiate projects. An annual Science Symposium brings outstanding scientists to the campus to speak to selected high school students and their teachers, and the students compete for scholarships and other awards. An annual industrial Education Exposition provides scholarships and awards for high quality projects of Industrial arts. Faculty members participate in a variety of interdisciplinary courses and seminars, many of them concerned with environmental science and ecology.

The College of Natural Sciences is attempting to make the study of science, mathematics, and technology meaningful and helpful for the problems of modern society.

## Biology

Downey, Head. Allegre, B. Clausen, Dowell, L. Eilers, Goss, Haman, D. Johnson, McCalley, Orr, Picklum, Riggs, Simpson, D. Smith, TePaske, Whitson, Winier, N. Wilson.

A multi-route biology curriculum enables the major to elect one of several plans. A program drawn up by the student and departmental adviser specifies which plan has been selected. This program should be completed as soon as possible after the declaration of major.

## BIOLOGY MAJOR-TEACHING

## Plan A

Required: 86:044; 86:048; 86:050, or 86:120, 86:121, and 86:123; 84:193; 82:190 16-20 hours
Required: 84:089 or 84:189 (seminars in biology) ............................................ 2 hours
Two courses from each of the five areas listed below 33-37 hours

55 hours
Area I: 84:021; 84:103; 84:160; 84:168.
ArealI: 84:022; 84:112; 84:130; 84:132; 84:166; 84:170.
Area III: 84:023; 84:131; 84:140; 84:142; 84:146.
Area IV: 84:024; 84:106; 84:108; 84:114; 84:120; 84:122; 84:138; 84:172. Area V: 84:025; 84:128; 84:151.

## Plan B

Required: 84:021; 84:022; 84:023; 84:024; 86:044; 86:048;
86:050, or 86:120, 86:121, and 86:123; 84:128; 84:140; 84:168;
84:193; 82:190
40-44 hours
Required: 84:089 or 84:189 (seminars in biology)............................................. 2 hours
One course from each of the two areas listed below......................................7-8 hours
Electives in biology . .........................................................................1-6 hours
55 hours

Area II: 84:106; 84:108; 84:114; 84:120; 84:122; 84:138; 84:172.


#### Abstract

Plan C individualized Program: a biology major may elect, with the assistance of his advisor, to formulate an individualized plan of study for achieving his major goals. A plan stating the student's long-range educational objectives and specifying how the objectives will be met must be submitted by the student, with his signature and that of his advisor, to a departmental review committee for final approval. Any changes in an approved plan are by student petition. Student must contact the department for this option.

Total minimum hours required 55 hours


## BIOLOGY MAJOR

## Plan A

Required biology-a minimum of 31 hours as follows:
Required: 84:089 or 84:189 (seminars in biology) 2 hours
Electives in biology 9-14 hours
And one course from each of the five areas listed in Plan A of the BIOLOGY MAJOR-Teaching ..... 15-20 hours
31 hours
Cognate courses:
Required: 86:044; 86:048; 86:050, or 86:120 and 86:121 ..... 12-13 hours
Required: cognate electives from anthropology, chemistry, earth science, foreign languages, geography, mathe- matics, physics, or psychology ..... 12 hours
Total minimum hours required 55-56 hours

## Plan B

Individualized Program: a biology major may elect, with the assistance of his advisor, to formulate an individualized plan of study for achieving his major goals. A plan stating the student's long-range educational objectives and specifying how the objectives will be met must be submitted by the student, with his signature and that of his advisor, to a departmental review committee for final approval. Any changes in an approved plan are by student petition. Student must contact the department for this option.
Total minimum hours required: ..... 55 hours
BIOLOGY MINOR-Teaching and Liberal Arts
*Required: 86:044 or 86:030 .4 hours
And one course from each of the five areas listed in Plan A ofBIOLOGY MAJOR-Teaching of which eight hours must be100-level. (84:193 and 82:190 may also be counted towardthe 8 -hour requirement.)20 hours
24 hours
*Home Economics majors may substitute 86:061 for this requirement.
Majors and minors must have a minimum of nine (9) hours from 84:021, 84:022, 84:023,84:024; and 84:025 (or their equivalents) prior to registration for 100 -level courses, including thespecific "Life" courses in the same area (I, II, III, IV, V) as the advanced course.

University of Northern Iowa

84:021. LIFE: Environmental Relationships- $\mathbf{3}$ hrs. Man as an integral part of the balance of nature, not as an external manipulator. Experience in collecting and interpreting ecological data and relating same to environmental problem areas. Discussion, 2 periods; lab., 2 periods ( 18 weeks); or discussion, 4 periods; lab., 4 periods ( 9 weeks).
84:022. LIFE: Local Plants and Animals- 3 hrs. Introduction to biological world through field experience; acquaintance with similarities and differences, community composition, and habitats of representative organism. Discussion, 4 periods; lab., 4 periods (for 9 weeks).

## 84:023. LIFE: Adaptation and Suvival- $\mathbf{3} \mathbf{~ h r s . ~}$

Mechanisms by which organisms and populations, including man, have adapted to respective environments and how adaptive information is stored, transmitted, utilized and exchanged. Discussion, 2 periods; lab., 2 periods (for 18 weeks); or, discussion 4 periods; lab., 4 periods (for 9 weeks).

## 84:024. LIFE: Form and Function- $\mathbf{3}$ hrs.

Interdependence of biological structure and function with primary focus given to interaction of biological systems. Discussion, 2 periods; lab., 2 periods ( 18 weeks); or disucssion, 4 periods; lab., 4 periods (for 9 weeks).

## 84:025. LIFE: The Cell- $\mathbf{3}$ hrs.

Structural organization, energy production and its utilization; replication, and transmission of genetic information, and the control of cell activities are considered to understand the maintenance of life. Discussion, 4 periods; lab., 4 periods (for 9 weeks).
84:031. Anatomy and Physiology I-4 hrs.
Structure and function of the organ systems of the human body. Open only to nurses in training. Discussion, 3 periods; lab., 2 periods.
84:032. Anatomy and Physiology II-4 hrs. A continuation of 84:031. Open only to nurses in training. Prerequisite: 84:031. Discussion, 2 periods; lab., 2 periods.
84:033. Principles of Microbiology- $\mathbf{3}$ hrs.
The base concepts and practical applications of microbiology in daily life are stressed. The course is designed for students majoring in areas other than science. Sections may be offered exclusively for nurses in training. Discussion, 2 periods; lab., 2 periods.

## 84:103(g). Conservation of Iowa Resources- $\mathbf{3} \mathbf{~ h r s . ~}$

Natural resources of Iowa, including soil. forest. wildlife, minerals and water, their interrelationships with the economics and social development of the state and nation; techniques of natural resources management. Discussion, 2 periods; lab., 2 periods. Prerequisite: 84:021 plus two other Life courses.

## 84:104(g). Iowa Conservation Problems I- $\mathbf{3}$ hrs.

Forests, wildlife and ecology relationships. Field experience. Preparation of visual aids, demonstrations and projects. Offered only at Iowa Teachers Conservation Camp.

84:105(g). Iowa Conservation Problems II- $\mathbf{3}$ hrs. Soil, water, and mineral resources. Field experience. Preparation of visual aids, demonstation and projects. Offered only at Iowa Teachers Conservation Camp.

## 84:106(g). Comparative Anatomy of the Vertebrates-4 hrs.

Consideration of the origin of vertebrates and a comparison of the anatomy of the organ systems of the classes. Discussion, 2 periods; lab., 4 periods. Prerequisite: 84:024 plus two other Life courses.

## 84:108(g). Vertebrate Embryology - 4 hrs.

Development of vertebrate organism. Formation and development of germ cells; fertilization; growth and differentiation. Prerequisite: 84:024 plus two other Life courses. 84:106 recommended. Discussion, 2 periods; lab., 4 periods.

## 84:112(g). Invertebrate Zoology - 4 hrs.

Anatomy and physiology of type forms of the invertebrate phyla. Prerequisite: 84:024 plus two other Life courses. Discussion, 2 periods; lab., 4 periods.
84:114(g). Animal Physiology-4 hrs.
Application of physical and chemical principles to selected organ systems, especially mammals. Discussion, 3 periods; lab., 3 periods. Prerequisite: 86:048; 86:050 or 86:120 (may be taken concurrently); 84:024; 84:025 plus one other Life course. One semester of physics recommended.

## 84:120(g). Plant Morphology-4 hrs.

Structure and evolution of plant phyla with emphasis upon algae, fungi, mosses, and ferns. Prerequisite: 84:024 plus two other Life courses. Discussion, 1 period; lab., 4 periods.
84:122(g). Plant Physiology-4 hrs.
Functional aspects of plant processes related to composition, metabolism, transport mechanisms, growth and development. Discussion, 2 periods; lab., 4 periods. Prerequisite: 86:048; 84:024; 84:025; plus one other Life course.

## 84:128(g). Cell Biology-4 hrs.

Fundamental physiological processes of cellular function with emphasis on metabolism, respiration, photosynthesis, protein synthesis, and molecular controls. Discussion, 3 periods; lab., 3 periods, Prerequisite: 86:124 or 86:050; 84:024; 84:025; plu one other Life course.
84:130(g). Protozoology - 4 hrs.
Consideration of systematics, morphology, physiology, morphogenesis, genetics and ecology of free-living and parasitic protozoa; literature studies on contemporary research and historical perspective. Discussion, 2 periods; lab., and field work, 4 periods. Prerequisite: 84:024; 84:025; plus one other Life course.
84:131(g). Animal Behavior- 4 hrs.
Psychological, physiological, sociological, a ethological approaches to behavior; relationsi/ between behavior and environment, and experimem tal variables. Discussion, 3 periods; lab., 3 periods Prerequisites: 84:023 plus two other courses from Life series or consent of instructor.

84:132(g). Parasitology-4 hrs.
Morphology, ecology, and life history of parasites important to man and other animals. Prerequisites: 84:022 plus two other Life courses; 84:112 or consent of instructor. Disucssion, 2 periods; lab., 4 periods.
2:1138. Human Physiology- 4 hrs.
Anatomy and functioning of organ systems of the human body. Prerequisites: 84:023; 84:024; 84:025. Discussion, 2 periods; lab., 2 periods.

## 84:140(g). Genetics- 4 hrs.

Analytical approach to classical, developmental and population genetics. Discussion, 3 periods; lab. projects arranged. Prerequisites: 84:023 plus two other Life courses.

## 8:142(g). Organic Evolution-2 hrs.

History, theory, and mechanics of evolution. The course of evolution as indicated by fossil records and other lines of evidence. Evolution and the modern synthesis of biology. Prerequisites: 84:023 plus two other Life courses.

## 84:146(g). Developmental Genetics- 4 hrs.

Patterns and principles of animal development. Emphasis on current concepts in developmental genetics. Discussion and lab., two 3 -hour periods. Prerequisites: 84:023; 84:025; plus one other Life course.
84:151(g). General Microbiology-4 hrs.
Physiology, morphology, taxonomy, and pathogenicity of microbes, with applications to agriculture, sanitation, and industry. Discussion. 2 periods; lab., 4 periods. Prerequisite: 86:048; 84:025 plus two other Life courses.

## 84:160(g). Field Zoology of Vertebrates- -4 hrs .

Identification and natural history of Iowa vertebrates. Field trips emphasized. Discussion, 2 periods; lab. and field work, 4 periods. Prerequisite: 84:021; 84:022; plus one other Life course.
84:166(g). Plant Systematics- $\mathbf{4} \mathbf{~ h r s . ~}$
Biology of angiosperms, including classification, evolution, population structures, and breeding systems. Discussion, 2 periods; lab. and field work, 4 periods. Prerequisite: 84:022 plus two other Life courses.

## 84:168(g). Ecology-4 hrs.

Relationships of plants, animals and environments with emphasis on the principles of community structure and dynamics. Prerequisite: 84:021 plus two other Life courses. Discussion, 3 periods; lab., 2 periods.

## 84:170(g). Entomology-4 hrs.

Introduction to the biology of insects. Discussion, 2 periods; lab., 4 periods. Prerequisite: 84:024; 84:022 plus one other Life course.

## 84:172(g). Plant Anatomy - 4 hrs.

Ontoge $y$, growth and differentiation of simple and comple, tissues of root, stem, leaf, and reproductive organs of higher plant groups. Prerequisite: 84:024 plus two other Life courses. Discussion, 2 periods; lab., 4 periods.

84:193. Current Curricula in Biology- $\mathbf{2}$ hrs.
Philosophy, methods, and materials of secondary school biology curricula, including BSCS, biology related programs (FUSE, ISIS, IGE), and others.
84:198. Independent Study.
84:210. Biological Techniques- $\mathbf{3}$ hrs.
Biological techniques of the teacher of biology. Lab., 6 periods.
84:220. Advanced Plant Morphology- -4 hrs.
Life histories of representatives of the plant phyla. Morphological and physiological advancements which have resulted in the gradual evolution of flowering plants. Discussion, 2 periods; lab., and field work, 4 periods.
84:225. Aquatic Biology - 4 hrs.
The biological, physical and chemical aspects of aquatic environments with special emphasis on collection and identification of aquatic organisms. Discussion, 2 periods; lab. and field work, 4 periods. Prerequisite: botanical and zoological background and a year of chemistry.
84:230. Special Problems in Biology-1-6 hrs.
Credit determined at registration. (Problems in biology other than those for theses or in regular curricular offerings.) Prerequisite: departmental approval; 84:292 recommended.
84:240. Endocrinology- 4 hrs.
Functions, synthesis and effects of hormones. Lab. experiments include small animal surgical techniques. Discussion, 3 periods: lab., 3 periods. Prerequisite: zoological background and one semester of either cell biology or biochemistry, or instructor's permission. Previous course in physiology recommended.

## 84:242. Comparative Physiology - 4 hrs.

Organ physiology of animals. Comparison of physiological processes in various phyla and relationships to environment. Prerequisites: zoological background, cell biology or biochemistry or instructor's permission. Physics and previous course in physiology recommended. Discussion, 3 periods; lab., 3 periods.
84:251. Experimental Microbiology-4 hrs.
A general introduction to experimental design and instrumental methods of analysis used in investigating the morphology, physiology and ecology of the major groups of microbes. Student must complete at least one original project in any of the above areas. Prerequisite: $84: 151(\mathrm{~g})$ or equivalent. Discussion, 2 periods; lab., 4 periods.
84:292. Research Methods in Biology- 3 hrs.
An introduction to experimental design techniques and instruments used in descriptive, quantitative, experimental biology. Practical experience will be available in various areas of instrumentation. Individual exploration of a possible thesis project. Discussion, 3 periods.
84:089; 84:189. Seminar-1 hr.
84:189(g); 84:289. Seminar-1 hr.
84:297. Practicum.
84:299. Research.

The following courses are regularly scheduled at Lakeside Laboratory by staff from the three Regents institutions. Enrollment is limited and permission of the instructor is required for all courses. Registration may be for undergraduate or graduate credit. Visiting staff may extend the course work offerings in particular summers. For current information, see the annual Iowa Lakeside Laboratory Bulletin usually available from the UNI Department of Biology after February 15 each year. Numbers within parentheses are the Lakeside Laboratory numbers.

## 89:101(g) (L:101). Field Biology-5 hrs.

Natural history and principles of ecology of the aquatic and terrestrial ecosystems of the area, including basic taxonomy of the native fauna and flora. Includes field and laboratory techniques. Individual projects included.
89:103(g) (L:103). Aquatic Ecology I-5 hrs.
Survey of local aquatic plants and animals and of aquatic habitats including environmental and community analysis. Emphasis on field work and appropriate methods.
89:104(g) (L:104). Aquatic Ecology II-5 hrs.
Project work as continuation of 89:103.
89:105(g) (L:105). Plant Taxonomy-5 hrs.
Basic principles of classification and evolution of vascular plants. Taxonomic tools, techniques, and the native flora is explored; includes field collections and group projects. Not to be taken by those with credit in 84:166.
89:108(g) (L:108). Protozoology- 5 hrs.
Biology of the protozoa; emphasis on morphology, physiology, systematics, and development of free living and parasitic forms. Collection, culture, and classification of local specimens; experimental work to be included. No credit for those with credit in 84:130.
89:109(g) (L:109). Freshwater Algae- $\mathbf{5}$ hrs.
Laboratory examination of collections made daily by class in Iowa Lakes Region; correlation made by student of text description with observations of living materials.
89:118(g) (L:118). Field Entomology-5 hrs.
Introduction to entomology with emphasis on methods of collecting and classifying insects, and on their natural history. Reference collections will be made with classification to order and family. No credit for those with credit in 84:170.

## 89:119(g) (L:119). Field Biology of Lower Green Plants- $\mathbf{5}$ hrs.

Field and laboratory investigation of mosses, liverworts, club mosses, quillworts, horsetails, and ferns. Many of these primary mesic plants have their western limits in the variety of habitats in Iowa.
89:207 (L:107). Helminthology -5 hrs.
Structure, life cycles and host parasite relationships of representative helminths; methods of collecting preserving, mounting, and identification; $\sigma$ perimental life cycles, methods of studying livi materials, special techniques for research in helminthology.
89:210 (L:110). Field Invertebrate Zoology - $\mathbf{5}$ hrs.
Biology of invertebrates with emphasis on local fresh-water and terrestrial forms, their structure, systematics, and behavior. Methods of collecting, culture, preserving, identifying, emphasis on study of living material. For students with background in invertebrate zoology.
89:215 (L:115). Field Mycology-5 hrs.
Identification and classification of the common fungi. Techniques for identification, preservation, and culture.
89:217 (L:117). Ecology and Systematics of Diatoms- 5 hrs.
Field experience in study of fresh-water diatoms from a variety of habitats; environmental factors affecting growth and distribution; techniques in collection and preparation of diatom samples.
89:224 (L:124). Aquatic Plants- $\mathbf{5}$ hrs.
Field analysis of aquatic and paludal vegetation; morphology, breeding systems and identification based on vegetative characteristics.
89:299 (L:111; L:112). Research.


## Chemistry

Chang, Acting Head. R. W. Hanson, Lyon, Macmillan, Richter, Rider, W. Wehner, Wiley, L. Wilson, Woo.

Note: It is strongly recommended that students considering a chemistry major consult the department head about the possibility of advanced placement or take 86:044 during the first semester of the freshman year.

## CHEMISTRY MAJOR-TEACHING

## Required:

Chemistry-86:044; 86:048; 86:120; 86:121; 86:123;
86:132; 86:140 or 86:142
23 hours
Physics-88:054; 88:056................................................................. 8 hours
Methods-82:190; 86:193.................................................................. 4 hours
Electives: chemistry beyond 86:048 ........................................................... 4 hours
39 hours
Note: Student is advised to complete a minor in another science or in mathematics. The mathematics prerequisites for one or more of the above courses are $80: 045,80: 046$, and 80:060. The required mathematics and physics courses should be completed by the end of the sophomore year.

## CHEMISTRY MAJOR-A

Required:
Chemistry-86:044; 86:048; 86:120; 86:121; 86:123; 86:132;
86:134 or 86:135; 86:140; 86:141; 86:143
32 hours
Physics-88:054; 88:056 ................................................................... 8 hours
Electives: chemistry or other sciences......................................................... 6 hours
46 hours
Note: The mathematics prerequisites for one or more of the above courses are $80: 045,80: 046$, 80:060, and 80:061. A reading knowledge of a foreign language, especially German, is strongly recommended, particularly for those planning advanced study in chemistry.

## CHEMISTRY MAJOR-B

Required:
Chemistry-86:044; 86:048; 86:120; 86:121; 86:123; 86:125;
86:132; 86:135; 86:140; 86:141; 86:143; 86:145
37 hours
Two additional advanced chemistry courses with a physical chemistry prerequisite. One physics course at or above the level of $88: 130$ or one mathematics course above the level of 80:061 may be substituted for one advanced chemistry course

7-8 hours
Physics-88:054; 88:056 .8 hours 52-53 hours
A reading knowledge of a foreign language, especially German, is strongly recommended, particularly for those planning advanced study in chemistry. Knowledge of computer programming is also de firable.

Note: The mathematics prerequisites for one or more of the above courses are 80:060 and 80:061.

University of Northern Iowa

This major will meet the requirements specified by the American Chemical Society for an approved undergraduate major.

## CHEMISTRY MINOR-Teaching and Liberal Arts

Electives in chemistry beyond 86:046 or 86:048
12 hours

## 86:030. Contemporary Chemical Problems-4 hrs.

Basic concepts of chemistry and their applications to living systems and the problems of an industrial society. The work of the chemist and the interactions of chemistry with other activities of man. Discussion, 3 periods; lab., 2 periods. No credit for student with credit in any college chemistry course. Recommended for General Education.
86:031. Socio-Economic Chemistry-1 hr.
Chemical problems of current interest and concern affecting the individual and society (e.g., energy, pollution, food supply, drugs, etc.). Discussion, i period. Credit does not count on chemistry major or minor.
86:041. Introductory Physiological Chemistry- $\mathbf{3}$ hrs. Inorganic, organic, and physiological chemistry for nurses in training. Discussion, 2 periods; lab., 2 periods.

## 86:044. General Chemistry I-4 hrs.

Structure of matter, its physical properties and laws describing them, the periodic table and its relation to atomic structure and chemical properties, and non-metallic elements and their compounds. Students who have had one unit of high school chemistry or equivalent may, if they show sufficient proficiency by examination, enter 86:046 or 86:048. Discussion, 3 periods: lab., 3 periods.

## 86:046. General Chemistry II B-4 hrs.

Continuation of 86:044 with emphasis on chemistry of non-metals and metals, chemical equilibrium, organic and physiological compounds. For science majors and others who do not take organic chemistry. Prerequisite: 86:044 or equivalent preparation. Discussion, 2 periods; lab., 6 periods. No credit for student with credit in 86:048.
86:048. General Chemistry II A-4 hrs.
Continuation of 86:044 with emphasis on chemistry of non-metals, metals, chemical and ionic equilibrium, and separation and identification of ions. Discussion, 2 periods; lab., 6 periods. Prerequisite: 86:044 or equivalent. For preprofessional students and science majors with a special interest in chemistry. Others may enroll. No credit for a student with credit in 86:046.
86:050. Bio-Organic Chemistry-4 hrs.
Theoretical and practical consideration of chemical principles important in biological systems. Stresses instrumentation techniques for biologists and medically related fields. No credit for student with credit in 86:123 (or 86:126). Discussion, 2 periods; lab., 6 periods. Prerequisite: 86:048.

86:061. Applied General Chemistry-3 hrs.
Principles of chemistry as applied to the home and industry. For home economics students and nonscience majors. Discussion, 2 periods; lab., 2 periods. No credit for student with credit in 86:044.
86:063. Applied Organic and Biochemistry-5 hrs.
For home economics students and non-science majors. Prerequisite: 86:061 or equivalent. Discussion, 3 periods; lab., 4 periods. No credit for a student with credit in 86:120 (or 86:124).
$\mathbf{8 6 : 1 2 0 ( g ) . ~ O r g a n i c ~ C h e m i s t r y - 3 ~ h r s . ~}$
Fundamentals of organic chemistry. For majors in the sciences and those preparing for medically related careers. Prerequisite: 86:046 or 86:048. Discussion, 3 periods.
86:121(g). Organic Chemistry Laboratory I-2 hrs.
Purification and identification techniques as well as some representative organic reactions. Prerequisite or corequisite: 86:120. Lab., 6 periods.
$\mathbf{8 6 : 1 2 3 ( g ) . ~ O r g a n i c ~ C h e m i s t r y ~ I I - 3 ~ h r s . ~}$
Continuation of 86:120. Prerequisite: 86:120. Discussion, 3 periods.
86:125(g). Organic Chemistry Laboratory II-2 hrs. Continuation of $86: 121$. Preparation and functional group analysis. Prerequisites: 86:121 and 86:120. Prerequsite or corequisite: 86:123.
86:130(g). Advanced Organic Synthesis- $\mathbf{1 - 2} \mathbf{~ h r s .}$
Advanced techniques in the preparation of organic compounds. Prerequisite: $86: 125$, or permission of instructor. Lab., 3 or 6 periods.
86:132(g). Quantitative Analysis-4 hrs.
Volumetric and gravimetric analysis. Prerequisite: 86:046 or 86:048. Discussion, 2 periods; lab., periods.
86:134(g). Instrumental Analysis I-4 hrs.
Instrumental methods of analysis. Theory of instrumentation and practical experience in such areas as potentiometric titration, polarography; electroanalysis, spectrophotometry, and gas chroh matography. Prerequisite: 86:132. Discussion, 2 periods; lab., 6 periods.

## 86:135(g). Instrumental Analysis II-4 hrs.

The application of physical chemical principles to theory and practice of instrumental methods of analysis such as spectrophotometric, electroanalytical, and chromatographic techniques. Prerequisites: 86:132 and 86:140. Prerequisite or corequisite: 86:141. Discussion, 2 periods; lab., 6 periods.

86:140(g). Physical Chemistry I- $\mathbf{3}$ hrs.
Application of the laws of physics to chemical phenomena. Prerequisite: $80: 060,88: 056$, or permission of the instructor. Discussion, 3 periods.
86:141(g). Physical Chemistry II- $\mathbf{3}$ hrs.
Continuation of Physical Chemistry I which is prerequisite. 80:061 is recommended as a prerequisite, but may be taken concurrently. Discussion, 3 periods.
86:142(g). Principles of Physical Chemistry- $\mathbf{3}$ hrs.
Physical aspects of chemistry for the needs of the high school chemistry teacher, and for students in the biological sciences. Prerequisite: 86:046 or 86:048; 80:046. Recommended; 88:054. Discussion, 3 periods.
86:143(g). Physical Chemistry Laboratory- $\mathbf{1 - 3}$ hrs. Techniques of physical measurements related to chemistry. Prerequisites: $86: 132$ and $86: 140 ; 86: 141$ may be taken concurrently. Meets 3 to 9 hours per week. Chemistry A and B majors should take at least two hours credit. Those with credit in 86:142 may take one hour credit.
86:144(g). Inorganic Chemistry I- $\mathbf{3}$ hrs.
The structure of elements and their consequent physical and chemical properties and their relations to the periodic chart. Prerequisite 80:046, 86:120. Discussion, 3 periods.
86:145(g). Inorganic Chemistry II- $\mathbf{3}$ hrs.
Application of physical chemical principles to the study of inorganic systems. Prerequisite: 86:124; 86:140. Prerequisite or corequisite: 86:141. Discussion, 3 periods.
86:147(g). Inorganic Chemistry Laboratory-1-3 hrs. Preparation, analysis, and study of the properties of inorganic compounds. Prerequisite: 86:134 or 86:135. Prerequisite or corequisite: 86:141; 86:144 or $86: 145$.

## 86:150(g). Biochemistry I-4 hrs.

Chemistry of life processes with emphasis on metabolism. Prerequisite: 86:123. Discussion, 2 periods, lab., 6 periods.
8:151(g). Biochemistry II-4 hrs.
Chemistry of life processes based on physical chemical principles. Prerequisites: 86:123 and 86:140. Prerequisite or corequisite: 86:134 and 86:141. Discussion, 2 periods; lab., 6 periods.

86:160(g). Radioisotope Techniques- -4 hrs .
Introduction to the use of radioisotopes. Sources, properties, and safe handling of radioactive material, with accompanying laboratory work in simple instrumentation and applications of radioactive tracers. Prerequisite: 86:048. Discussion, 2 periods; lab., 6 periods.

## 86:180. Undergraduate Research in Chemistry $-1-3 \mathrm{hrs}$.

Credit determined at registration. May be repeated only once for credit. Prerequisite: 86:140 and approval of department head. Prerequisite or corequisite: 86:141.

86:193(g). Current Curricula in Chemistry-2 hrs. Philosophy, methods, and materials of secondary school chemistry curricula, including CHEM Study, IPS (Introductory Physical Science), PACE Chemistry, and other innovations in the teaching of chemistry. Discussion, 2 periods; lab., 2 periods.
86:220. Advanced Organic Chemistry- $\mathbf{3} \mathbf{~ h r s .}$
Product analysis, kinetics, and mechanism, of organic reactions. Prerequisites: 86:123; 86:141. Discussion, 3 periods.
86:230. Coordination Chemistry- $\mathbf{3}$ hrs.
Lecture course on various aspects of coordination compounds. Prerequisite: 86:141; 86:144 or 86:145.
86:235. Molecular Structure- 3 hrs.
Lecture course on wave mechanics as applied to atomic and molecular structure, with emphasis on experimental spectroscopy. Prerequisites: 80:061; 88:054; 88:056; 86:141.
86:240. Special Problems in Chemistry-1-6 hrs.
Credit determined at registration. Problems selected according to needs of students. Prerequisite: departmental approval.
86:242. Advanced Analytical Chemistry- $\mathbf{3 - 4}$ hrs.
A theoretical and practical consideration of the problems of separation and measurements in analytical chemistry. Discussion, 3 periods; lab., 3 periods; lecture may be taken without the laboratory. Prerequisites: 86:132 and approval of department head.

## 86:292. Research Methods and Chemical Literature- $\mathbf{3}$ hrs.

Concepts and procedures for developing a chemical research problem; use and importance of the chemical literature.

## Earth Science

W.I. Anderson, Head. DeKock, De Nault, Grant, Hoff, Odell, Walters.

## EARTH SCIENCE MAJOR-TEACHING

# Required: 80:045; 80:046; 82:190; 82:194; 86:044; *86:046; <br> 88:054; 88:056 <br> 28 hours <br> Required: 87:031: 87:035; 87:010; 87:021 .................................................. 13 hours <br> Electives in earth science**.................................................................... 6 hours <br> 47 hours 

*86:048 may be substituted for 86:046
**Electives may include any 87 numbered course or $84: 105$ or 97:110. Students are advised to complete a minor in another science or in mathematics.

## EARTH SCIENCE MINOR-Teaching and Liberal Arts

Required: courses in earth science ..... 20 hours
GEOLOGY MAJOR
Required: 80:045; 80:046; 86:044; 86:046*; 88:054; 88:056 ..... 24 hours
Required: 87:031; 87:035; 87:129; 87:132; 87:136; 87:142 ..... 23 hours
Required: Summer Field Course** ..... 5 hours
Electives in geology ..... 2 hours
*86:048 may be substituted for 86:046.
**Summer field course requirement to be met by credit at a field camp approved by the department.

Recommended electives: 80:060; 80:061; 84:034.
PLANETARIUM EDUCATION MINOR
Required: 87:010; 87:011; 87:012; 87:013; 88:054; 88:056;
87:150; 50:026; 24:031; 87:151
25 hours

## 87:010. Astronomy I-3 hrs.

Basic introduction to the universe; development of astromony and its impact on the minds of men. The solar system and its motions; introduction to stars, galaxies, cosmology, and life in the universe.

## 87:011. Astronomy Laboratory-1 hr.

Students enrolling in 87:010 may enroll in this laboratory. Involves fundamentals of observation, use of introductory equipment, use of almanacs atlases, and ephemerides. Some photography will be done. Prerequisite: consent of instructor and concurrent enrollment in 87:010.

## 87:012. Astronomy II- $\mathbf{3}$ hrs.

Selected topics in astronomy as chosen by the instructor in consultation with students enrolled. Prerequisite: 87:010 or equivalent.

## 87:013. Astronomy Laboratory II-2 hrs.

A continuation of $87: 011$. Includes spectral classification, galactic recession, stellar photometry data reduction, and stellar photography. Prerequisite: concurrent enrollment in 87:012 or consent of instructor.

87:021. Elements of Weather- $\mathbf{3}$ hrs.
Meteorological elements and their application to the environment; interpretation of weather maps and weather data; forecasting and briefing on the daily weather. Discussion, 3 periods.
87:031. Physical Geology- 3 hrs.
Introduction to man's physical environment emphasizing the materials of the earth and the processes that lead to changes within and on the earth. Lab. emphasis: rocks and minerals, landscape development, mountain building. Discussion, 2 periods; lab., 2 periods.

## 87:033. Geology Spring Field Trip-2 hrs.

Geology and earth sciences field trip during annual spring break; to be preceded by weekly seminars on the geology of the proposed study area. Prerequisite or corequisite: 87:031 or equivalent, and permission of the instructor.

## 87:035. Earth History-4 hrs.

Methods and principles involved in working out the geologic history of the earth; development of plate tectonics and continental drift through geologic
time; progression and evolution of life from Precambrian time to present time. Prerequisite: 87:031 or equivalent. Discussion, 3 periods; lab., 2 periods.
87:109(g). Fundamentals of Astronomy- $\mathbf{3 - 4}$ hrs.
Basic principles of astronomy developed with more of a mathematical treatment than that used in 87:010 or 87:012. Prerequisite: departmental approval. Discussion, 3 periods; or discussion, 3 periods, and laboratory, 2 periods.

## 87:118(g). Experience in Earth Science- $\mathbf{3}$ hrs.

For elementary and junior high school teachers. Experimental inquiry based learning; investigation of the earth and it's environs. Discussion, 1 period; lab., 4 periods.

## 87:125(g). Invertebrate Paleontology - 4 hrs.

Invertebrate animals of the geologic past, including their morphology, evolutionary trends, classification, and distribution. Field trips for the study of fossil occurrences and for the collection of fossil materials. Prerequisites: 87:035 or 84:034. Discussions, 2 periods; lab., 4 periods.
87:128(g). Fundamentals of Geology - -4 hrs.
Basic principles of physical and historical geology. Prerequisite: departmental approval.
87:129(g). Structural Geology- 4 hrs.
The origins and mechanics of rock deformation. Description and analysis of structural features. Field work where appropriate. Prerequisites: 87:031 and working knowledge of trigonometry. Discussion, 2 periods; lab., two 2-hour periods.
87:132(g). Mineralogy-4 hrs.
Investigation of the more important minerals, including their origin, crystal forms and physical properties with emphasis on the relationship of physical properties to structure, composition and bonding. Field trips. Prerequisites: 87:044; 87:031 or permission of instructor. Discussion, 2 periods; lab., two 2-hour periods.
87:134(g). Geological Field Methods-3 hrs.
In-field study of geological field procedures and problems including mapping, measurements, aerial photography and aerial photo interptetation, field records, and geological reports. Short field trips. Discussion, 2 periods; lab., 3 periods. Prerequisite: 87:031 or 97:031 or equivalent.

## 87:135(g). Optical Mineralogy-4 hrs.

The optical properties of minerals and the use of the petrographic microscope. Emphasis is placed on the identification of minerals by oil immersion methods and in the identification of minerals in rock thin sections. Prerequisite: 87:132. Discussion, 2 periods: lab., 4 periods.
87:136(g). Principles of Stratigraphy - 4 hrs .
Investigation of layered rocks, sedimentary processes, environments of deposition, correlation procedures. and classification and description of common sedimentary rocks. Field trips. Prerequisite: 87:035; or corequisite: 87:035 and permission of instructor. Discussion, 2 periods; lab., two 2 -hour periods.

87:141(g). Geomorphology-3 hrs.
Mass wasting processes and sculptural evolution of varied terrains. Emphasis on Midwestern geomorphology. Short field trips. Discussion, 2 periods; lab., 3 periods. Prerequisite: 87:031 or 97:031 or equivalent.

## 87:142(g). Igneous and Metamorphic Petrology -4 hrs .

Description, classification, and genesis of igneous and metamorphic rocks. Discussion, 2 periods; lab., two 2-hour periods. Prerequisite: 87:132.

## 87:150(g). Planetarium Education-2 hrs.

Fundamentals of planetarium education; includes review of the night sky, history of and operation of small and medium size planetaria, practice with planetarium projectors. Students will prepare and present one program. Prerequisite: 87:010 or equivalent. Discussion, 2 periods.
87:151(g). Planetarium Education Intern-1 hr.
Intern experience with programs prepared and given by student to live audiences; involves preparation and giving of approximately three to five planetarium programs. Prerequisite: 87:150.

## 87:160(g). Geology of Iowa-2 hrs.

lowa's geologic history: Precabrian to present. Includes: rock record, changes in environments of deposition, fossil record, occurrence and origin of important economic mineral resources, Pleistocene (Ice Age) history. Prerequisite: 87:035; or graduate status and permission of instructor. Discussion, 2 periods.

## 87:189(g). Readings in Earth Science-1-3 hrs.

Maximum of three hours may be applied to earth science or geology majors or minors. Prerequisite: departmental approval.

## 87:231. Mineral Deposits- $\mathbf{3}$ hrs.

The origin of metallic ore deposits with emphasis on the character of the ore-bearing solutions, their mode of transfer and controls of ore deposition; a study of nonmetallic deposits with emphasis on the environmental factor controlling their development, examples of the important types of mineral deposits and an introduction to exploration and development methods. Prerequisite: 87:132. Discussion, 3 periods.

## 87:280. Problems in Earth Science-1-4 hrs.

Problems and area of study selected according to needs of students. Prerequisite: departmental approval.

87:292. Research Methods in Earth Science- $\mathbf{3}$ hrs. Methods and evaluation of research in the earth sciences. Individual exploration of a possible research or thesis project in the earth sciences. Discussion, 3 periods.
87:297. Practicum.
87:299. Research.

# Industrial Techology 

Rudisill, Head. Betts, Bro, Browning, Dennis, Downes, Freitag, LaRue, Luck, Norton, R. Pershing, Pine, W. Wagner, R. Young.

Bachelor of Arts Programs
INDUSTRIAL ARTS EDUCATION MAJOR
Required *mathematics-science: 80:045; 86:030; 88:052. ..... 12 hours
Required: 33:005; 33:011; 33:016; 33:018; 33:020; 33:022; 33:032; 33:036; 33:190; 33:195 ..... 31 hours
Electives in Industrial Technology ..... 12 hours
55 hours
*Special sections of $80: 045$ and $86: 030$ for this major.86:030 is not required for students completing 86:044 and 86:046.88:052 is not required for students completing 88:054 and 88:056.Students intending to teach industrial arts at the senior high school level should complete notless than twelve (12) hours of electives in one of the following areas: Construction, Manufacturin.Power, Communications.
INDUSTRY MAJOR
Required: 33:005; 33:011; 33:016; 33:018; 33:020; 33:022; 33:032; 33:036; 33:172; 15:050 ..... 31 hours
Required *mathematics-science: 80:045; 86:030; 88:052 ..... 12 hours
**Electives in Industrial Technology ..... 15 hours
58 hours
*Special sections of 80:045 and 86:030 for this major. 86:030 is not required for students com-pleting 86:044 and 86:046. 88:052 is not required for students completing 88:054 and 88:056.**Students should complete electives ( 15 hours) in one of the following concentrations: Power,Architectural Design, Construction, Electronics, Mechanical Design, Mechanical (Production,Graphic Arts.
INDUSTRIAL ARTS EDUCATION MINOR
Required: 33:005; 33:011; 33:016; 33:018; 33:020; 33:022; 33:032; 33:036; 33:190 ..... 29 hours
INDUSTRY MINOR
Required: 33:005; 33:020; 33:032 ..... 6 hours
Electives in Industrial Technology ..... 14 hours
INDUSTRIAL ARTS SUBJECT FIELD-Middle School/Junior High School Education Major*
Required: 33:005; 33:011; 33:020; 33:022; 33:032; 33:036; $33: 190$; and two of the following: 33:016, 33:018, 33:183 ..... 29 hours
(*See Department of Curriculum and Instruction, p. 111.)
Bachelor of Technology ProgramsTECHNICAL INSTITUTE EDUCATION MAJOR
Required General Education 40 hours
Required mathematics-science*: 80:045; 80:046; 80:060; 86:030; 88:054; 88:056 ..... 24 hours
Required professional: 20:017; 20:020; 20:040; 20:116;
28:129; 33:101; 33:181; 33:191; 33:193 ..... 24 hours
Required core: 33:005; 33:020; 33:032 ..... 6 hours
Required Concentration** ..... 30-37 hours
Electives ..... 2-9 hours133 hours
**Concentrations (one of the following):Architectural Design: 33:011; 33:018; 33:022; 33:012; 33:115;
33:116; 33:166; 33:167; 33:170; 33:173 36 hours
Automotive/Diesel: 33:036; 33:160; 33:161; 33:162; 33:163; 33:164; 33:165; 33:168; 33:170; 33:171 35 hours
Construction Technology: 33:011; 33:018; 33:115; 33:116; 33:166; 33:167; 33:170; 33:171; 33:173 32 hours
Electronics Technology: 33:036; 33:152; 33:153; 33:154; 33:162; 33:185; 80:070 (2 hrs.); 88:152; 88:154 30 hours
Mechanical Design: 33:011; 33:016; 33:012; 33:111; 33:112; 33:113; 33:118; 33:141; 33:162; 33:170 35 hours
Mechanical Technology: 33:011; 33:016; 33:111; 33:112; 33:130; 33:141; 33:143; 33:144; 33:162; 33:170 37 hours
*Special sections of 80:045 and 86:030 for this major. 86:030 is not requied for students com-pleting 86:044 and 86:046.
A candidate for this major must have a minimum of one (1) year of recent and significant trade experience in the trade he is preparing to teach. The amount of trade experience specified is sufficient to obtain certification approval to teach related trade subjects. Approval to teach laboratory or shop courses may be obtained upon completion of a total of three (3) years of recent and significant trade employment.
TRADE AND INDUSTRIAL EDUCATION MAJOR:
Required General Education ..... 40 hours
Required mathematics-science*: 80:045; 86:030; 88:052 ..... 12 hours
Required professional: 20:017; 20:020; 20:040; 20:116;
28:139; 33:101; 33:181; 33:191; 33:193 ..... 24 hours
Required core: 33:005; 33:020; 33:032 ..... 6 hours
Required Concentration** ..... 39-44 hours
Electives ..... 7-12 hours

* Concentrations (one of the following):Architectural Drafting: 33:011; 33:018; 33:022; 33:012; 33:172;
33:115; 33:116; 33:118; 33:166; 33:167; 33:173; 33:185 40 hours
Automotive/Diesel: 33:011; 33:036; 33:172; 33:152; 33:160; 33:161; 33:162; 33:163; 33:164; 33:165; 33:168 39 hours
Building Construction: 33:011; 33:018; 33:022; 33:172; 33:115;
33:116; 33:130; 33:166; 33:167; 33:173; 33:18539 hours

Mechanical Drafting: 33:011; 33:016; 33:022; 33:036; 33:172;
33:111; 33:112; 33:113; 33:118; 33:141; 33:162; 33:185
44 hours
*Special sections of 80:045 and 86:030 for this major. 86:030 is not required for students completing 86:044 and 86:046. 88:052 is not required for students completing 88:054 and 88:056.

A candidate for this major must have a minimum of one (1) year of recent and significant trade experience in the trade he is preparing to teach. The amount of trade experience specified is sufficient to obtain certification approval to teach related trade subjects. Approval to teach laboratory or shop courses may be obtained upon completion of a total of three (3) years of recent and significant trade employment.

## INDUSTRIAL TECHNOLOGY MAJOR

Required General Education
*Concentrations (one of the following):
Architectural Design: 15:050; 33:011; 33:018; 33:022; 33:012;

33:005. Production Systems- 2 hrs.
Introduction to construction and manufacturing technology. Evolution, systems, research and development, and planning and control of production. Evaluation of industrial consumer products.
33:011. Material Processing Technology- 6 hrs.
Laboratory activities in measuring, forming, separating, combining, conditioning, and finishing processes. Prerequisite or corequisite: 33:005.
33:012. Engineering Graphics-2 hrs.
True length, bearing and slope of lines; true size, strike and dip of planes; connectors; piercing points; intersections of planes; and plane vectors.
Prerequisite: consent of instructor.
33:016. Manufacturing Technology-2 hrs.
Production systems necessary to design, plan for mass production, and produce finished goods. Prerequisite: 33:011 or consent of instructor.

33:018. Construction Technology- 2 hrs.
Building construction practices from site investigation to the finished structure; surveying, soil testing, excavation, foundation and superstructure construction, etc. Prerequisite: 33:011, or consent of instructor.
33:020. Communication Systems- $\mathbf{2}$ hrs.
Industrial communications, emphasis on visual and audio systems. Concepts of design, production, and dissemination methods; factors involved in design and distribution of industrial consumer products.
33:022. Communications Technology- $\mathbf{- 5}$ hrs.
Synthesis of industrial communications through product development, distribution, and service: includes product and packaging design, and development of promotional materials via visual and audio communications. Prerequisite or corequisin: 33:020.

33:032. Power Systems- 2 hrs.
Broad areas of energy and power; emphasis on technology involved in power transmission, generation, control, storage, and consumption. Energy utilization by society and the impact on the economy and environment.
33:036. Power Technology- $\mathbf{5}$ hrs.
Basic applications of specific principles of energy and power systems. Demonstrations of instrumentation, procedures analysis and reporting. Prerequisite or corequisite: 33:032.

## 33:101(g). History and Philosophy of VocationalTechnical Education-2 hrs.

Philosophy and historical development, principles, practices, and organization of public vocationalprechnical and adult education in the nation.
$\mathbf{3 3}: 105(\mathrm{~g})$. Guides to Automotive Fundamentals -2 hrs.
Automotive principles and first echelon maintenance of the automobile. No credit for a student having credit in 33:036.
33:111(g). Industrial Grapics- -4 hrs.
Detail and assembly drawings, electrical diagram, auxiliary projections, sections, basic tolerancing, gears and cam. Prerequisite: 33:022 or consent of instructor.
33:112(g). Technical Graphics- -4 hrs.
Application of contemporary design and drafting practices by manufacturing industries; includes tool design. geometric tolerancing, numerical control, reproduction processes, and metrication. Prerequisite: $33: 111$ or consent of instructor.
33:113(g). Technical Design Graphics- $\mathbf{3}$ hrs.
Individual or group concentration within a subdivision of design graphics. Prerequisite: $33: 111$ or consent of instructor.
33:115(g). Architectural Drafting I-3 hrs.
Design and plan development of residential structures. Prerequisite: 33:022 or consent of instructor.

## 33:116(g). Architectural Drafting II-4 hrs.

Structural systems, materials, and processes for commercial buildings; emphasis on planning, drafting, and interpretation of architectural plans. Team approach used in developing plans for commercial structures. Prerequisite: 33:115 or departmental approval.

## 33:118(g). Technical Illustration- $\mathbf{3}$ hrs.

Pictorial drafting and shading as used in manufacturing for design proposals, manuals, and publications. Prerequisite: 33:022 or consent of instructor. Other majors should consult the instructor before enrolling.

## 33:121(g). Advanced Wood- 5 hrs.

Prerequisite: 33:011 or consent of instructor.

## 33:123(g). Wood Technology I-3 hrs.

Mass priduction in the woodworking industries; product selection and development; production machines; design of tools, jigs, and fixtures. Prerequisite: 33:121 or departmental approval.

33:124(g). Wood Technology II-3 hrs.
Wood structure and properties, identification, lumber grading, and modified wood products. Prerequisite: 33:121 or departmental approval.

## 33:128(g). Building Trades Mechanical-4 hrs.

Practical application and principles of plumbing, heating, electrical and air conditioning, including sheet metal. Instruction provided by journeymen tradesmen in respective areas; lab. and on-the-job experiences. Prerequisite: departmental approval.

## 33:130(g). Metal-4 hrs.

Student will divide his time equally between two of the following: Advanced instruction in oxyacetylene welding, electric arc welding, foundry, sheet-metal, metal spinning, ornamental iron, forging and heat treating, and art metal and enameling, Prerequisite: 33:011 or consent of instructor. May be repeated in different areas but credit towards degree may not exceed 8 hours.

## 33:141(g). Machine Tools-4 hrs.

Prerequisite: 33:011 or consent of instructor.

## $33: 143(\mathrm{~g})$. Machine Tool Technology I- $\mathbf{3}$ hrs.

Procedures for researching, developing, and producing machined metal devices. Prerequisite: 33:141 or departmental approval.
33:144(g). Machine Tool Technology II- $\mathbf{3}$ hrs.
Advanced study in layout, quality control and measurements, product scheduling and control, tool and die, jig and fixture, automatic, semi-automatic, and special metal cutting machines. Prerequisites: 33:143 or departmental approval.
33:151(g). Electricity- $\mathbf{3}$ hrs.
Single and three-phase motors, transformers, controls and power distribution sysems. Prerequisite: 33:036 or consent of instructor.
33:152(g). Electronic Circuits- $\mathbf{3}$ hrs.
Introduction to semi-conductor theory, electric circuits, amplifiers, power supplies, oscillators, detectors. Prerequisites: 33:036 or consent of instructor.

## 33:153(g). AM-FM Radio- $\mathbf{3}$ hrs.

AM and FM transmission and reception and principles of television. Prerequisite: 33:152 or consent of instructor.
33:154(g). Electronic Communications- $\mathbf{3}$ hrs.
Pulse communication methods, television methods, transmission lines, wave guides, antennas and microwave systems. Prerequisite: 33:153 or departmental approval.
33:155(g). Graphic Arts-4 hrs.
Includes bookbinding, paper making, relief printing, and silk screen.
33:158(g). Advanced Graphic Arts-2 hrs.
Prerequisite: 33:155 or departmental approval.
33:160(g). Automotive and Diesel Engines- 4 hrs. Principles of spark and compression-ignition engines; comparative study of variation in design and operational characteristics of engine types. Prerequisite: 33:036 or consent of instructor.

## 33:161(g). Power Trains and Suspension- $\mathbf{3}$ hrs.

Principles and problems of power train units, front suspension and brake systems.

## 33:162(g). Applied Hydraulics and Pneumatics -3 hrs .

Basic fluid mechanics including pneumatics with emphasis on principles and applications to the fields of power, transportation, automation (production), and control. Practical mathematical problems and experiments provide greater insight. Prerequisite: 80:045 or consent of instructor.

## 33:163(g). Automotive Electrical and Fuel Systems -3 hrs .

Operation, testing, and analysis of electrical and fuel units used on automotive and industrial power equipment. Broad application of testing equipment. Prerequisite: 33:036 or consent of instructor.

33:164(g). Fuel Injection Systems- $\mathbf{3} \mathbf{~ h r s . ~}$
Operation, testing, and adjustment procedure for fuel injection systems, governors, fuel cleaners, and metering devices. Prerequisite: $33: 160$ or departmental approval.
33:165(g). Problems of Internal Combustion Engines-4 hrs.
Design, performance variation, engine diagnosis and correctional procedures for both spark and compression ignition engines. Prerequisite: 33:163 and 33:164, or departmental approval.
33:166(g). Building Construction I- $\mathbf{3}$ hrs.
Site selection, building materials, and procedures for residential structures. Prerequisite: 33:018 or consent of instructor.
33:167(g). Building Construction II-4 hrs.
Layout, materials, processes, and cost estimating for commercial structures. Prerequisite: 33:166 or departmental approval.

## 33:168(g). Problems in Power Trains and

 Suspensions- $\mathbf{3}$ hrs.Design, performance, diagnosis and correctional procedures on automotive transmissions, suspensions, and hydro-mechancial system. Prerequisite: 33:161 or departmental approval.
33:169(g). Applied Photography-4 hrs.
Photographic fundamentals; emphasis on photographic systems; electrical, optical, mechanical, chemical and light-sensitive component areas.
33:170(g). Statics and Strength of Materials- 4 hrs.
Testing, evaluating, and reporting material characteristics and strength, and probable usefulness in the construction of products. Prerequisite: 88:54 or departmental approval.
33:171(g). Applied Heat- 3 hrs.
Generating and controlling heat energy and transforming it into other useful forms of energy. Prerequisite: 88:54 or departmental approval.

## 33:172(g). Materials Testing-2 hrs.

Laboratory analysis, investigation, and testing of basic industrial materials with implications for industrial applications and environmental quality. Prerequisite: 86:030 or consent of instructor.

33:173(g). Building Construction III- $\mathbf{3}$ hrs.
Construction procedures for residental and commer. cial buildings; advanced study of heating, plumbing, and electrical equipment. Prerequisite: 33:166 or departmental approval.

## 33:177(g). Industrial Plastics I- $\mathbf{3}$ hrs.

Introduction to plastics; industrial molding, the moforming, casting and coating, reinforci" foaming, joining, fastening. Prerequisite: 33:011 or consent of instructor.

33:178(g). Industrial Plastics II-2 hrs.
Advanced instruction in one of the following: molding processes A (compression, transfer, blow); molding processes $B$ (injection, rotational); thermoforming; reinforcing process; foaming processes. Prerequisite: 33:177 or departmental approval. May be repeated in different areas but not more than 8 hours may be counted toward a degree.

## 33:181(g). Trade and Technical Course Construction- 2 hrs.

Basic methods of identifying, analyzing, selecting and organizing instructional content for vocationio trade and technical programs.
33:182(g). Coordination of Part-time Industrial Education-2 hrs.
Planning, organizing, developing, and teaching part-time cooperative industrial education programs.

## 33:183(g). Industrial Arts for the Elementary <br> School- 2 hrs.

Also includes industrial arts for the junior high school.

33:184(g). Technical Program Development-2 hrs. Advanced methods of identifying, analyzing, selecting, and organizing instructional content for technical programs. Prerequisite: $33: 181$ or departmental approval.

33:185(g). Industrial Technology-3 hrs.
Offered in separate areas as shown in Schedule of Classes. Credit may be earned in more than one area but not repeated in a single area.
33:187(g). Co-operative Technology- $\mathbf{3} \mathbf{~ h r s . ~}$ Designed to be taken twice in consecutive semesters. To be taken following or concurrently with acceptable technical work experience. This should be considered a 36 -week course. Prerequisite: department approval.
33:188(g). Advisory Committees and Conference Leading- 2 hrs.
Principles and practices for organizing, developing, and using the advisory committee in vocationaltechnical education, utilizing conference procederes and techniques.

33:190(g). Teaching Industrial Arts- $\mathbf{3}$ hrs.
Credit also as a course in education for a student whose major is industrial arts-teaching. Prereruisite: 11 hours in industrial arts.

33:191(g). Methods of Teaching Trade and Technical Courses- $\mathbf{2}$ hrs.
Basic teaching principles, organizing instruction, methods of presentation, lesson planning, testing and evaluation of trade and technical students.
33:192(g). Special Problems in Career Education -2 hrs .
problems in instruction, program development, and local program evaluation. Prerequisite: departmental approval. May be repeated once for credit.
33:193(g). Personnel Evaluation in VocationalTechnical Education-2 hrs.
Basic concepts and techniques for vocationaltechnical student evaluation and evaluation of other personnel. Prerequisite: 33:191 or departmental approval.
33:194(g). Management of Technical Instruction -2 hrs.
Advanced teaching methods, organization of course content, lesson planning, experiment and problem development, testing, evaluation, and management for technical teacher preparation. Prerequisite: 33:191 or departmental approval.
$33: 195(\mathrm{~g})$. Designing Industrial Education Facilities- $\mathbf{2}$ hrs.
Concepts of layout and design, types of programs, architectural and engineering considerations; planning procedures; equipment selection, and facility evaluation. Prerequisites: 33:022 and 33:190; or consent of instructor.
33:198. Independent Study.
See pp. 57, 75.

33:214. Problems in Teaching Industrial Arts-4 hrs. Not over 3 hours may also count as education to satisfy the special methods requirement in the professional core.
33:226. Foundations of Industrial Education-4 hrs. Leaders, movements, principles and curriculumtechniques and trends.

33:228. Contemporary Theories- $\mathbf{2}$ hrs.
Practices and procedures in industry and education. Developments in technology.

33:270. Research Projects in Industrial Arts- $\mathbf{3}$ hrs. Students choose an activity from the following: 1. Automotive, 2. Drafting, 3. Electricity, 4. Industrial Arts Design; 5. Machine Shop; 6. Metal; 7. Wood; 8. Plastics; 9. Graphic Arts. Provides for concentration. Students may re-enroll in different activities and earn a maximum of six hours in any one activity. Prerequisite: 33:292 or consent of instructor.

33:273. Research Projects in Technology-3 hrs.
Scientific investigations, application, demonstration, and reporting of individualized areas of advanced technology. May be repeated for a total of 9 semester hours. Prerequisite: 33:292 or consent of instructor.
33:282. Industrial Arts Seminar-1 hr.
Selected problems dealing with the school shop and its operation. May be repeated once for credit.

33:292. Industrial Arts Research Methods-2 hrs. 33:299. Research.

## Mathematics

Hamilton, Head. D. Baum, Bruha, Crane, J. Cross, Dotseth, Duncan, Litwiller, Longnecker, Lott, Millar, Moehlis, Myung, G. Nelson, *Rathmell, Rule, Schurrer, Silvey, Walljasper, C. Wehner, Wiesenfeld, J. Wilkinson.

## *on leave

The sequence in Mathematics begins with:
80:045 and 80:046 Elementary Analysis I and II ......................................... 8 hours
80:060, 80:061, and 80:062, Calculus I, II, and III
12 hours
However, at the time of first enrollment each student will be placed in the most advanced course for which he is qualified by previous training and experience. Credit for courses which may thus be bypassed does not need to be made up with other mathematics courses, but some students are advised to strengthen their programs by choosing additional advanced courses in mathematics.

A student whose high school background in mathematics is not strong may be required to take 80:020 Mathematics for General Education, 3 hours, and/or 80:112 Introduction to Geometry, 4 hours. Such a student might require up to 51 hours of work in mathematics to complete a major.

A student who elects an undergraduate major in mathematics may want to complete at least one minor in some field of application such as physics, chemistry, biology, economics, sociology, or acco rating.

Students who plan to continue their work in mathematics beyond the B.A. level are urged to begin the study of at least one foreign language. Russian, German, and French are particularly
recommended. Some students will, by careful use of their electives, be able to complete both a language minor and a minor in a field in which mathematics is applied.

The following courses may be used to satisfy any requirements in the Mathematics MajorTeaching and the Mathematics Major (Plans A and B): 80:020, 80:030, 80:063, 80:111, 80:112, 80:113, 80:131, 80:134, 80:139, 80:158, 80:183, 80:185, and 80:191. 80:190 may not be used to satisfy any requirements in the Mathematics Major (Plans A and B).

No more than one of the following courses may be used to satisfy any requirements in the Mathematics Major-Teaching and the Mathematics Major (Plans A and B): 80:070, 80:080, 80:170, 80:172.

## MATHEMATICS MAJOR-TEACHING

Required: The completion of 80:062
Required: 80:190
Electives: 16 hours from at least three of the following areas with one of these including a two-semester sequence:
Probability and Statistics 80:153; 80:174; 80:175
Algebra 80:160; 80:161; 80:162
Geometry 80:155; 80:165; 80:166; 80:189
Analysis 80:147; 80:148; 80:156
Computer Science 80:171; 80:176; 80:177; 80:184; 80:187
Mathematical Logic 80:169; 80:179; 80:182; 80:188
with additional electives in mathematics to make a total of 16 hours.
The total program hours will depend on a student's background and will vary from 19 to 43 hours. A student beginning with $80: 045$ will have a minimum program of 39 hours.

## MATHEMATICS MAJOR

## Plan A

Required: The completion of 80:062
Electives: $\mathbf{2 0}$ hours from at least three of the following areas
with two of these including two-semester sequences:
Probability and Statistics 80:153; 80:174; 80:175
Algebra 80:160; 80:161; 80:162
Geometry 80:155; 80:165; 80:166; 80:189
Analysis 80:147; 80:148; 80:156
Computer Science 80:171; 80:176; 80:177; 80:184; 80:187
Mathematical Logic 80:169; 80:179; 80:182; 80:188
Topology 80:167; 80:168
with additional electives in mathematics to make a total of 20 hours
The total hours will depend on a student's background and will vary from 20 to 44 hours.

## Plan B-Computational Emphasis

Required: the completion of 80:062
Required: 80:050; 80:070; 80:149; 80:171; 80:176; 80:177; 80:184
Required: 6 hours from the following -
80:153; 80:154; 80:160; 80:165; 80:166; 80:169;
80:174; 80:175; 80:187
The total program hours will depend upon the student's background and will vary from 27 to 51 hours.

## MATHEMATICS MINOR-Teaching and Liberal Arts

A minimum of 16 hours is required as follows:
Required: 80:060
Electives: at least three courses numbered above 80:046 which may include only one course from 80:070, 80:080, 80:172, and which must represent at least two of the areas listed under Mathematics Major-Plan A.
Note: a. electives may not include 80:111, 80:112, 80:113, 80:030, 80:131, 80:134, 80:139, 80:170, 80:183, or 80:185.
b. 80:158 and 80:190 may not be included in the 3 courses required under the electives but may be used by a student on the teaching program as additional elective to complete the 16 hours requirement.
The total minor will depend on a student's background and will vary from 16 to 28 hours. The student contemplating a mathematics minor is urged to consult with the head of the Department of Mathematics for assistance in planning his program.

As with the major, first enrollment should be in the most advanced course for which the student is qualified by pevious training and experience.

## MATHEMATICS SUBJECT FIELD—Middle School/Junior High School Education Major**

Required: 80:030; 80:131; 80:134; *80:111; 80:112; 80:191................................ 17 hours
Required: 80:070 or $80: 080$; $80: 153$ or $80: 172$;
80:113 or 80:144
8 hours
25 hours
*Departmental permission to use $80: 045$ instead of $80: 111$ will be granted when conditions warrant.
(**See Department of Curriculum and Instruction, page 111.)

> 80:020. Mathematics for General Education-3 hrs. The language and ideas of mathematics. 80:030. Foundations of Arithmetic- $\mathbf{3}$ hrs. Cardinal numbers and sets. Abstraction and extension of number concepts. Place value numeration as related to algorithms. Students with credit in either 80:158 or $80: 160$ should not enroll for this course without permission of the head of the department.

80:045. Elementary Analysis I-4 hrs.
Properties of algebraic, exponential, logarithmic. and circular functions, mathematical structures.
80:046. Elementary Analysis II-4 hrs.
Plane and solid analytic geometry, vector =Igebra in 2 and 3 space. Polar Coordinates, translations and rotations of the coordinate plane.
80:050. Matrices with Applications- $\mathbf{3}$ hrs.
Introduction to matrices, systems of linear equations vector spaces and linear mappings, rank and inverses, determinants, characteristic values and characteristic vectors. Prerequisite: 80:046. Students with credit in 80:161 should not enroll in this course without permission of the head of the department.
80:054. Mathematics of Measurement- $\mathbf{3}$ hrs. Laboratory appoach to the applied problems of elementary analysis. Prerequisite: 80:46. 4 periods.

80:060. Calculus I-4 hrs.
The derivatives and integrals of elementary functions and their applications. Prerequisite: 80:046.

80:061. Calculus 11-4 hrs.
Continuation of 80:060, which is a prerequisite.
80:062. Calculus III-4 hrs.
Continuation of $80: 061$, which is a prerequisite.
80:063. Mathematical Methods for the Physical Sciences-4 hrs.
Series, complex numbers, multivariable calculus and Fourier series; developed from an applied point of view. May replace 80:062 for a student with a major in a physical science. Student may not earn credit for both $80: 062$ and 80:063. Prerequisite: 80:061.

## 80:070. Introduction to Programming-1-2 hrs.

An introduction to programming of electronic calculators and to Fortran programming for digital computers. If taken for one hour, may be repeated for a total of 2 hours credit.

80:080. Mathematics of Finance- $\mathbf{2}$ hrs.
Interest, annuities, and life insurance. Prerequisite: one year of high school algebra or 80:045.

## 80:10\%(g). Readings in Mathematical Literature -2 hrs.

May be repeated for credit. Prerequisite: departmental approval.
*80:111(g). Introduction to Analysis-4 hrs.
A study of the properties of the real numbers; linear equations, functions, inequalities; linear systems including systems of inequalities and linear programming; complex numbers; quadratic relations; and circular and exponential functions. Prerequisite: departmental approval or $80: 030$. No credit for a student who has credit in 80:045.
*80:112(g). Introduction to Geometry-4 hrs.
Topics in three divisions of geometry, namely (1) Greek geometry; (2) contemporary developments in Euclidean geometry; (3) Foundation and other geometries. Prerequisite: departmental approval or 80:030.
*80:113(g). Topics in Mathematics- $\mathbf{3}$ hrs.
Topics in number theory, geometry, and algebra not included in the prerequisite courses. Topics will be selected from the following: divisibility; congruence; continued fractions; theory of proportion; applications of mechanics in geometry; maximum and minimum problems in geometry; linear programming; Fibonacci numbers; transfinite arithmetic; mathematical induction. Prerequisite: 80:111 and 80:112.
*Note: 80:111, 112, and 113 are designed especially for elementary majors with mathematics subject field and for advanced graduate students with meager backgrounds who want to do serious work not involving calculus.
80:120(g). Elementary Game Theory-3 hrs.
Zero and non-zero sum games. Games with and without saddle points. Strategies, linear programming, games with complete and incomplete information. Particular interest to students in business and social science. Prerequisite: 80:045 or consent of instructor.
80:131(g). Geometry for the Elementary Teacher -3 hrs .
The language of geometry. Properties of selected geometric curves. Rigid motion. Selected activities from topology, measurement. Prerequisite: 80:030. Students with credit in 80:112 or 80:165 should not enroll without permission of the head of the department.
80:134(g). Teaching of Mathematics in the
Elementary School-2 hrs.
Explores relationship between the psychology of learning and child development in the teaching of mathematics at the eiementary school level; includes teaching strategies and management models. Prerequisites: 80:030; 80:131.
$\mathbf{8 0 : 1 4 4 ( g )}$. Elementary Number Theory -3 hrs.
Topics from prime numbers, elementary theory of congruence, continued fractions. Diophantine equations;, Fibonacci numbers. Pell's equation, the golden rectangle. Pythagorean triangles and transfinite numbers. Prerequisite: 80:046 or 80:111.

80:147(g). Advanced Calculus I-3 hrs.
The real numbers, Euclidean $n$-space, continuous and differentiable functions of several variables. Infinite sequences and series of functions. Prerequisite: 80:062.

80:148(g). Advanced Calculus 1I-3 hrs.
A continuation of $80: 147$. Riemann and Lesbesgue integrals. Curves and surfaces and the integrals on them. Prerequisite: 80:147.
80:149(g). Differential Equations- $\mathbf{3}$ hrs.
Elementary theory and applications of first order differential equations. Introduction to numerical techniques of solving differential equations. Solutions of nth order linear differential equations with constant coefficients. Prerequisite: 80:062.
80:153. Probability Theory- $\mathbf{3}$ hrs.
Discrete sample spaces, conditional probabil. Bayes' formula, random variables, probability of tions, expected value. Chebychev's Theorem, plications. Prerequisite: 80:046 or 80:111.
80:154(g). Introduction to Stochastic Processes -3 hrs .
Elements of stochastic processes. Markov chains, random walk, applications, Prerequisite: 80:153 and 80:061.
80:155(g). Elementary Differential Geometry-3 hrs.
The analytic study of curves and surfaces in threedimensional Euclidean space. Prerequisites: 80:062 and 80:165.
80:156(g). Introduction to Complex Analysis- $\mathbf{3}$ hrs.
Differentiation and integration of functions of a single complex variable. Taylor and Laurent expansions. Conformal mapping. Prerequisite: 80:062.

## 80:158(g). Foundations of Elementary <br> Mathematics- $\mathbf{4}$ hrs.

Critical study of the elements of arithmetic, geometry and algebra. Topics from number theory, algebraic and geometric structures. Students with credit in either 80:030 or 80:160 should not enroll for this course without permission of the head of the department. Prerequisite: 80:046 or equivalent.
$80: 160(\mathrm{~g})$. Modern Algebra I-4 hrs.
An introduction to the study of algebraic systems. Includes: groups, rings, fields, homomorphisms and isomorphisms. Prerequisite: 80:061 or equivalent.
80:161(g). Linear Algebra-4 hrs.
Vector spaces, linear transformations, dimension, inner products, matrices, determinants, minimal polynomial, Jordan canonical form, eigenvalues and eigenvectors. Applications. Prerequisite: 80:160.
80:162(g). Modern Algebra II- $\mathbf{3}$ hrs.
A continuation of $80: 160$. Includes groups with operators, modules over rings, Sylow theorems, composition series, semisimple and simple rings, field theory and introduction to Galois theory. Prerequisite: 80:160.
$80: 163(\mathrm{~g})$. Lattices and Boolean Algebra- $\mathbf{3}$ hrs.
Elementary lattice theory and applications to logic, electrical networks, and geometry. Boolean functions and Boolean Algebras. Boolean rings and their representations. Prerequisite: 80:160.

80:165(g). Introduction to Modern Geometries -4 hrs.

Foundations of geometry; basic concepts of Euclidean and non-Euclidean geometries. Prerequisite: 80:046.
$80.166(\mathrm{~g})$. Introduction to Linear Geometry - $\mathbf{3}$ hrs. Basic concepts and properties of convex sets in two, three, and higher dimensions. Convex polyhedra. Applications to maxima-minima problems in geometry, graph theory and linear programming. Prerequisite: 80:165 or consent of instructor.
80:167(g). Topology I-4 hrs.
An introductory study of metric spaces, completeness, toplogical spaces, continuous functions, compactness, connectedness, separability, product and quotient spaces. Prerequisite: 80:061.
80:168(g). Topology II- $\mathbf{3}$ hrs.
A continuation of 80:167. Two and n-dimension manifolds, orientable manifolds, the fundamental group of a space, free groups, covering spaces, application to geometry and knot theory. Prerequisite: 80:160 and 80:167.

## 80:169(g). Mathematical Logic I-4 hrs.

An introduction to the semantics and syntax of the propositional calculus and the predicate calculus. Elements of the theory of algorithms. Prerequisite: 80:060 or consent of instructor.

## 80:170(g). Fundamentals of Computer

 Programming-2 hrs.An introduction to the historical development of digital computers, to Fortran IV programming, and to flow charting. The writing and execution of computer programs. Students may not earn credit for both 80:070 and 80:170.
80:171(g). Introduction to Computer Science-4 hrs. Concepts and construction of algorithms used in various areas of computer science with an introduction to the design of digital computers. Prerequisite: 80:070.
80:172(g). Fundamentals of Statistical Methods -3 hrs .
Intuitive approach to probability and inferential statistics. Students with credit in 80:174 may not enroll in 80:172.
80:174(g). Mathematical Statistics I-3 hrs.
Continuous random variables, moment generating functions, central limit theorem, sampling distributions; testing hypotheses and estimation. Prerequisite: 80:062 and 80:153.
80:175(g). Mathematical Statistics II- $\mathbf{3}$ hrs.
Continuation of $80: 174$. Small sample theory, sample models in analysis of variance. Prerequisite: 80:174.
80:176(g). Introduction to Numerical Analysis- $\mathbf{3}$ hrs.
An introduction to mathematical methods applicable to the digital computer including finite differences, numerical integration and differentiation, solution of linear and non-linear equations, and solutions of ordinary differential equations with initial conditions. The writing and execution of programs involving these methods. Prerequisite: 80:061 and 80:070.

80:177(g). Introduction to Optimization-3 hrs. Mathematical techniques used to solve optimization problems; topics from classical optimization techniques, search techniques, linear programming using the simplex method, nonlinear programming, integer programming. Prerequisites: 80:070; 80:050.

## 80:179(g). Mathematical Logic II-3 hrs.

Semantics of the predicate calculus. Gödel's completeness theorem for first order theories. Completeness, categoricity and decidability. Some decidable mathematical theories and the method of elimination of quantifiers. Prerequisite: 80:169

## $80: 180(\mathrm{~g})$. History of Mathematics $-\mathbf{3}$ hrs.

Survey of mathematical activities of mankind, the motives and influences affecting the development of mathematics. Prerequisite: 80:046.
$\mathbf{8 0 : 1 8 1 ( g ) . ~ P h i l o s o p h y ~ o f ~ M a t h e m a t i c s - ~} \mathbf{3} \mathbf{~ h r s . ~}$
Consideration of views on foundations of mathematics and such topics as the role and possible limitations of mathematics in scientific investigation; the significance of logical constructs in mathematics. Prerequisites: A Humanities course, plus one semester of calculus and at least one additional mathematics course.

## $\mathbf{8 0 : 1 8 2 ( g ) . ~ I n t r o d u c t i o n ~ t o ~ S e t ~ T h e o r y - 3 ~ h r s . ~}$

The axioms of set theory. Relations and functions. Equivalence and ordering relations, ordinal numbers and transfinite induction. Ordinal arithmetic. Zorn's lemma, well-ordering and the axiom of choice. Cardinal numbers and the Cantor-Bernstein theorem. Prerequisite: 80:160 or $\mathbf{8 0 : 1 6 5}$ or 80:169.
$\mathbf{8 0 : 1 8 3} \mathbf{( g )}$. History of Arithmetic-2 hrs.
80:184(g). Introduction to Automata Theory-4 hrs.
Finite automata. Neural networks and memories in finite state machines. Infinite automata. Algorithms, computability and infinite-state machines. Turing machines. Decision problems for finite and infinite machines. Introduction to formal languages. Prerequisite: either 80:070 or $80: 169$; and 80:061 or consent of instructor.
80:185(g). Mathematics for the Exceptional Child - 3 hrs.

Work with clinical cases under guidance. Prerequisite: 80:134.
$\mathbf{8 0 : 1 8 7 ( g ) . ~ F o r m a l ~ L a n g u a g e s - 3 ~ h r s . ~}$
Natural languages and formal languages. Grammars and their generated languages. Finite and infinite machines and their relations to formal languages. Operations on languages. Some unsolvable and solvable problems. Prerequisite: 80:184.
$\mathbf{8 0 : 1 8 8 ( g ) . ~ M o d a l ~ L o g i c - 3 ~ h r s . ~}$
The syntax and semantics of several modal propositional and preicate logics. Consistency, completeness, and decidability questions. Prerequisite: 80:169.
80:189(g). Geometric Transformations- -4 hrs.
Rigid and similarity transformations in the Euclidean plane and Euclidean space. Groups, subgroups and normal subgroups of transformations. Symmetry groups, the Polya-Burnside theorem and applications to crystallography and
design. Groups and the foundations of geometry. Prerequisite or corequisite: 80:165 and 80:160.

## 80:190. The Teaching of Secondary Mathematics

 -3 hrs .Teaching strategies for grades $7-12$; roles of mathematics content and learning psychology in the secondary teaching situation. Credit also as a course in education for a student with a major in mathematics. Prerequisite: 80:046.

## 80:191(g). Contemporary Secondary (7-12)

 Mathematics Curricula- 2 hrs.Study and evaluation of current secondary projects, manipulative materials, textbooks, individualized programs, learning packages, and commercial tests. Prerequisite: 80:134 or 80:190.
80:198. Independent Study.
See pp. 57, 75.
80:201. Mathematical Analysis I- 3 hrs.
The real numbers. Topology of Cartesian spaces. Continuous functions. Differentiation in Cartesian spaces. Prerequisite: 80:147.
80:202. Mathematical Analysis II- $\mathbf{3}$ hrs.
Riemann-Stieltjes and Lebesque Integral. Integration in Cartesian spaces. Improper and infinite integrals. Infinite series. Prerequisite: 80:201.
$\mathbf{8 0 : 2 1 0}$. Theory of Numbers- $\mathbf{3}$ hrs.
Basic interrelations of the system of integers.
$80: 220$. Functions of a Real Variable- $\mathbf{3}$ hrs.
Metric spaces, topological spaces, limits, continuity, Weierstrass Approximation Theorem, Stone-Weinerstrass Theorem, functions of bounded variation. Tietze's Extension Theorem. Prerequisite: 80:148.

## 80:221. Measure and Integration-3 hrs.

Lebesgue measure and integral; measure spaces, measurable functions, monotone convergence theorem, Lp-spaces, product measures, Fubini theorem, Haar measure. Prerequisite: 80:220.
80:235. Problems in Teaching Arithmetic- $\mathbf{2}$ hrs.
Course content usually generated by participants. Typical topics: problems dealing with: individualizing instruction, assessing growth, major concepts and skills in the elementary mathematics program. Prerequisite: departmental approval.

## 80:245. Topics in Abstract Algebra-3 hrs.

Topics from groups, rings and ideals, fields, Galois theory, introduction to homological algebra, infinite Abelian groups and linear algebras.

## 80:265. Systems of Geometry- $\mathbf{3}$ hrs.

Projective geometry. Transformations in projective geometry, and the development of affine, Euclidean and non-Euclidean geometries as subgeometries within projective geometry. Prerequisite: 80:165.

## 80:267. Topics in Topology-3 hrs.

Selections from general topology; uniform spaces, topological groups and algebras, rings of continuous functions, topological vector spaces. Prerequisite: 80:167.

80:273. Topics in Probability and Statistics- $\mathbf{3}$ hrs. Topics chosen from correlation and regression analysis, analysis of variance and co-variance, nonparametric methods, order statistics. Prerequisite: 80:175 or equivalent. May be repeated for credit.
80:278. Topics in Mathematical Logic- 3 hrs.
Topics from: algebraic logic, topological logic, tuitionistic logic, the theory of definability, mat valued logic, the logic of infinitely long formult theories of computability and decidability, a decision procedures in formal mathematical theories. Prerequisite: 80:169. May be repeated for credit.
80:280. Elementary School Mathematics-Curriculum- $\mathbf{3}$ hrs.
Experimental and current curricula; purpose, organization and design considered with methods of implementing curricular change.

## 80:281. Elementary School Mathematics-Concepts- 3 hrs.

Exploration of findings of selected learning theorists as these apply to both content and pedagogy in the elementary mathematic program.

## 80:289. Topics in Geometry- $\mathbf{3}$ hrs.

Topics from: general theory of magnitudes; content and measure in geometry; the Banach-Tarski paradox; geometric dissection theory: packing and tiling; combinatinal geometry; geometric inequalities; descriptive geometry. Prerequisite: 80:165.
80:290. Problems in Teaching Junior High School Mathematics- 2 hrs.
Course content decided by participants and instructor. Both mathematics content and methodology of the junior high school considered. Prerequisit, departmental approval. May be repeated once for credit.
80:291. Problems in Teaching High School Mathematics- 2 hrs.
Course content decided by participants and instructor. Both mathematics content and methodology of senior high school considered. Prerequisite: departmental approval. May be repeated once for credit. 80:299. Research.

## Physics

R.J. Hanson, Head. Engardt, Hsu, *Hsue, V. Jensen, Meyers, Olson, Unruh, Vilmain, R. T. Ward. *on leave
PHYSICS MAJOR-TEACHING
Required: 80:060; 80:061; 82:190; 88:130; 88:131; 88:169; 88:193 25 hours
*Electives in physics: 100 -level courses ..... 7 hours
Electives in non-physics courses from the College of Natural Sciences (excluding 82:020 and mathematics below 80:060) ..... 12 hours
44 hours
*A course in electronics is highlh recommended unless the student has a strong background inelectronics.
Sufficient work including current curricula shsuld be taken for certification approval in asecond area. Common teaching combinations are physics-chemistry or physics-mathematics.
PHYSICS MAJOR-A
Required physics: 88:130; 88:131; 88:169;
one course from 88:135, 88:162, 88:163, 88:136, 88:172;and one from 88:152, 88:154, 88:161, 88:170, 88:17519 hours
Electives in physics: 100-level (excluding 88:193) ..... 7 hours
Required mathematics: 80:060; 80:061 ..... 8 hours
Electives in mathematics beyond 80:061 ..... 4 hours
Electives from College of Natural Sciences (excluding 82:020, mathematics below 80:060, and physics below 88:130) ..... 14 hours
52 hours
Major $\mathbf{A}$ is especially suitable for students (including double majors) desiring a broadbackground in science who are taking a substantial amount of work in other science areas. It isalso suitable for students not seeking a high degree of specialization.
PHYSICS MAJOR-B
Required physics: 88:130; 88:131; 88:169 ..... 13 hours
Electives in physics: 100-level (excluding 88:193), shouldinclude at least two courses from $88: 135,88: 136$,88:162, 88:163, 88:17223 hours
Required mathematics: 80:060; 80:061; 80:063 or 80:062 ..... 12 hours
*Electives in mathematics beyond 80:063 ..... 3 hours
Electives in chemistry: normally 86:044 and 86:048 ..... 7-8 hours
(well qualified students may, with approval of the Departmentof Chemistry, be permitted to substitute higher level chemistrycourses for one or both of these courses.)
58-59 hours

Major B is recommended for students seeking a rigorous background in physics as preparation for graduate study in a science or in engineering, or for employment in applied or fundamental science in industry, government research laboratories, etc.
*80:070 is strongly recommended and, if possible, 80:176.
Students planning graduate study in physics should include in electives the theoretical courses
$\mathbf{8 8 : 1 3 5}, \mathbf{8 8 : 1 6 2 , 8 8 : 1 7 2 , ~ a n d , ~ i f ~ p o s s i b l e , ~ 8 8 : 1 3 6 , ~ p l u s ~ a t ~ l e a s t ~ t h r e e ~ o f ~ t h e ~ f o l l o w i n g ~ c o u r s e s ~ w h i c h ~}$ have associated laboratories: $88: 152,88: 161,88: 170,88: 175$. If possible, the student should take more than the required amount of mathematics; suggested possibilities are $80: 147,80: 148,80: 149$, 80:153, 80:156, 80:160, 80:161. Consult with adviser concerning need for foreign language.

## PHYSICS MINOR-Teaching

Required: 88:193
Electives in physics: 100 -level courses (including no more than 4 hours from 88:152 and 88:154)

## PHYSICS MINOR

Electives in physics: 100-level courses (excluding 88:193)
Note: For some students, a background of 88:054 and 88:056 is recommended before enrolling in 88:130 and 88:131. Students with strong physics and mathematics background from high school may enroll in 88:130-131 without 88:054-056. Placement test may be taken in department. Chemistry or mathematics majors should enroll in 88:130-131 if physics is taken after the sophomore year. Students who have not had 88:054-056 should register for 88:060 concurrently with 88:130 and 88:061 concurrently with 88:131.

## 8:008. The Physics of Sound and Music- $\mathbf{3}$ hrs.

Basic principles of vibratory motion and sound generation; speed, transmission, absorption, reception, and analysis of sounds. Applications to music, noise, speech, and acoustics. Discussion, 2 periods; lab., 2 periods. May not be applied to a physics major.
88:010. Physics and the Environment-3 hrs.
Basic physics principles necessary to understand certain contemporary problems of man's relationship to his environment. Application to energy production, use, and distribution; to thermal, light, radiation, and noise pollution; to clean air and water problems, and to transportation. Discussion, 3 periods. Does not apply toward a physics major.
88:052. Principles of Physics- -4 hrs.
Topics in mechanics, heat and electricity. Does not apply toward a physics major or minor. No credit given for a student with credit in 88:054 or 88:056. Prerequisite: 80:020 or equivalent. Discussion, 2 periods; lab., 2 periods.

## 88:054. General Physics I-4 hrs.

Basic principles and interrelationships of matter, motion, and energy, including topics from classical and modern physics. Discussion, 3 periods, lab., 2 periods. Prerequisite: working knowledge of algebra and trigonometry.

## 88:056. General Physics II-4 hrs.

Continuation of General Physics I. Discussion, 3 periods; lab., 2 periods. Prerequisite: 88:054.
88:060. Experiments in Physics I-1 hr.
May accompany 88:130 only. No credit for a student with credit in 88:054.
88:061. Experiments in Physics II-1 hr.
May accompany $88: 131$ only. No credit for a student with credit in 88:056.
*Graduate credit for non-physics majors only.
*88:120(g). Elementary Atomic and Nuclear Physics- 4 hrs.
Atomic and nuclear structure, elementary particles, radioactivity, wave-particle duality, interactions and detection of radiation. Lower mathematical level than 88:169. Prerequisite: 88:056. Discussion, 3 periods; lab., 2 periods. Not for physics majors.
*88:130(g). Physics I-4 hrs.
A calculus-based course in mechanics, heat, and wave motion. Discussion, 5 periods. Prerequisite: 80:060 or permission of the instructor.
*88:131(g). Physics II-4 hrs.
A calculus-based course in electricity, magnetism, and optics. Discussion, 5 periods. Prerequisite: 88:130 and 86:061 or permission of instructor.

## 88:134(g). Environmental Applications of Physics

 -3 hrs .Applications of physical laws and concepts to the understanding and possible solution of certain problems of the environment. Topics related to energy demands, production, use, and distribution4 and topics related to noise, thermal, air, water, and radiation pollution. Discussion, 3 periods. Prerequisite: 12 hours of physics or approval of instructor.
88:135(g). Analytical Mechanics- $\mathbf{3}$ hrs.
Vector analysis, particle dynamics, celestial mechanics, dynamics of a system of particles, rigid body motion. Lagrange's equations, and theory of vibrations. Prerequisite: 80:061 and 88:130. Discussion, 3 periods.
88:136(g). Thermodynamics- $\mathbf{3 - 4} \mathbf{~ h r s . ~}$
First and second laws of thermodynamics: PVT surfaces; reversibility, entropy; phase transitions statistical viewpoint. Prerequisite: 80:061, 88:056 or 88:131. Discussion, 3 periods; lab., optional, 2 periods.
$88152(\mathrm{~g})$. Electronics I-4 hrs.
Electronics principles, basic d.c. and a.c. circuits, electrical measurements, power supplies, amplification by vacuum tubes and transistors, amplifier circuits. Discussion, 2 periods; lab., 4 periods. Prerequisite: 88:056 or equivalent.
88:154(g). Electronics II-4 hrs.
Oscillators, comparison measurements, and selected topics from: servo systems, operational amplifiers for measurements and control, electronic switching, and timing and digital counting systems. Discussion, 2 periods; lab., 4 periods. Prerequisite: 88:152 or permission.

## 88:157(g). Fundamentals of Physics I-4 hrs.

Basic principles of mechanics, heat, and sound. Enrollment limited to graduate stucients other than physics major or minors. Department approval required. Prerequisite: Working knowledge of algebra and trigonometry. Discussion, 3 periods; lab., 2 periods.

## 8:158(g). Fundamentals of Physics II-4 hrs.

Basic principles of electricity, magnetism, light, and modern physics. Department approval required. Prerequisite: 88:157 or equivalent. Discussion, 3 periods; lab., 2 periods.

## $88161(\mathrm{~g})$. Acoustics and Optics-4 hrs.

Harmonic oscillators, wave theory, acoustics, and physical optics. Prerequisite: 80:061 and 88:131. biscussion, 3 periods; lab., 2 periods.
8:162(g). Electric and Magnetic Fields I-3 hrs. Vector analysis, electrostatic fields and boundary value problems, dielectric material, electromagnetic induction, magnetic fields, magnetic materials, Maxwell's equations and radiation, selected topics. Prerequisite: 80:061 and 88:131. Discussion, 3 periods.
8:163(g). Electric and Magnetic Fields II-3 hrs. Continuation of 88:162. Prerequisite: 88:162. Discussion, 3 periods.

## 8:169(g). Modern Physics- $\mathbf{5}$ hrs.

Atomic and nuclear structure; special relativity; alpha, beta, gamma, and X-radiation; wave-particle duality; introductory quantum mechanics; elementary particles. Discussion, 4 periods; lab., 2 periods. Prerequisite: 80:061; 88:056. Recommended: 88:130 and 88:131.

## $8: 170(\mathrm{~g})$. Solid State Physics- $\mathbf{3 - 4}$ hrs.

Molecular binding; band theory of solids; electrical, thermal, and magnetic properties; imperfections; semiconductors, p-n junctions, and transistors. Prerequisite: 88:169 or equivalent. Discussion, 3 periods; lab., optional 2 periods.

[^3]88:175(g). Nuclear Physics- $\mathbf{3 - 4}$ hrs.
Interaction of radiation with matter; alpha, beta, and gamma decay; neutron physics and nuclear reactions; nuclear models; elementary particles; applications of nuclear physics. Prerequisite: 88:169. Discussion, 3 periods; lab., optional, 2 periods.
88:180. Undergraduate Research in Physics-1-3 hrs.
Research activities under direct supervision of sponsoring staff member. Prerequisite: departmental approval.

## 88:185(g). Laboratory Projects- 1.3 hrs.

Experimental activities to meet individual needs and interests not normally included in other courses. Maximum of 3 hours credit may be applied to a physics major or minor. Prerequisite: departmental approval.

## 88:189(g). Readings in Physics-1-3 hrs.

Readings/problems in areas of physics (or related interdisciplinary areas) not normally covered in other courses. Maximum of 3 hours may be applied to a physics major or minor. Prerequisite: departmental approval.
88:193(g). Current Curricula in Physics- $\mathbf{2}$ hrs. Philosophy, methods, and materials of high school physics curricula, including PSSC Physics, Project Physics, PSPE, TMMW, and others. Prerequisite: 8 hours of physics. Discussion, 1 period; lab., 2 periods.
88:250. Special Problems in Physics- $1-6$ hrs.
Credit determined at registration. Problems selected according to needs of students. Prerequisite: departmental approval.
88:280. Current Topics in Physics- $\mathbf{3}$ hrs.
Selected topics from areas of current interest in fundamental and applied physics: includes means of communication with high school students on these topics. Prerequisite: 88:169.
88:291. Evaluation of Programs in Secondary School Physics-3 hrs.
Critical examination of the philosophy, materials and instructional techniques in secondary school physics programs such as PSSC Physics. Project Physics, IPS Physical Science and others. Study of educational research done on these programs will be included. Discussion, 3 periods. Prerequisite: 15 hours of physics and two years of physics teaching experience; 88:193 recommended.
88:292. Research Methods in Physics- $\mathbf{3}$ hrs.
88:299. Research.
*Graduate credit for non-physics majors only.

## Science

There is no science department as such. The science majors and the general courses in science are offered under the jurisdiction and the general supervision of the Dean of the College of Natural Sciences.

## SCIENCE MAJOR-TEACHING

> Required: 80:045 and $80: 046$ or $80: 111$ and $80: 112 ; 86: 044 ; 86: 046 *$; 88:054; 88:056; and three of the following: 84:021, 84:022, 84:023, 84:024, 84:025
> 33 hours

21:178 The Junior High School-5 hrs. is strongly recommended as this major is intended especially for those desiring to teach general science in junior and senior high school and not for those desiring to teach biology, chemistry or physics.
*86:048 may be substituted for 86:046.

## SCIENCE MAJOR

> Required: two of the following four science areas for a total of 15-17 hours
> Biology: any three from 84:021, 84:022, 84:023, 84:024, 84:025
> Chemistry: 86:044, 86:046 or 86:048
> Earth Science: 87:031 and 87:035
> Physics: 88:054 and 88:056
> Electives in science ......................................................................21-23 hours
> 38 hours

The equivalent of at least 10 hours in a foreign language is strongly recommended for this science major.

## Emphasis: Environmental Planning

The Environmental Planning Emphasis under the Science Major is coordinated by an interdepartmental faculty committee appointed by the Dean of the College of Natural Sciences and is designed for those seeking the scientific principles, integrated theory, and practical experience in the field of environmental planning and land use from the ecological approach. The committee will review progress of students at the end of the sophomore and junior years and will recommend awarding of the emphasis upon its completion. A minimum over-all grade point average of 2.50 is required for retention in the program.

Required: 84:021; 84:022; 86:046 or 86:048; 87:031; 87:035;
88:052 or $88: 056 ; 80: 070 ; 80: 172$ or $97: 109 ; 94: 011$ or
94:024; 92:024 or 92:054; 84:103; 84:168; 97:132 or 97:120.......................... 42 hours
Electives in the sciences at 100 level, to be approved by
the student's adviser .............................................................. 7 hours
Electives in geography at 100 level, to be approved by adviser ........................... 3 hours
Independent study which may take the form of a field experience
with a planning agency, an environmental planning study con-
ducted by the student, or a similar practical experience........................... 3 hours
55 hours

## SCIENCE SUBJECT FIELD-Middle School/Junior High School Education Major*

The student wishing approval to teach science in the Middle School/Junior High School will have a program planned to meet his individual needs. The program must be approved by the Science Education Coordinating Committee.
(*See Department of Curriculum and Instruction, page 111.)

## GENERAL COURSES IN SCIENCE

82:020. The Physical Sciences- $\mathbf{3}$ hrs.
Introduction to basic ideas of astronomy, motion, energy, atoms and the structure of matter, and methods of science. Discussion, 3 periods; or discussion 2 periods and investigations, 1 period.
82:120(g). Experiences in Physical Sciences- $\mathbf{3}$ hrs.
For majors in elementary or junior high education. Selected fundamental physical science concepts. Student inquiry and investigation of scientific phenomena stressed. Discussion, 2 periods; lab., 2 periods.
82:122(g). Experiences in Biological Sciences- $\mathbf{3}$ hrs.
For majors in elementary or junior high education. Outdoor and laboratory observations of nature correlated with simple experimental design. Fundamental biological concepts applicable to classroom use. Discussion, 1 period; lab., 4 periods.
82:175. The Nature of Science- 2 hrs.
Science as a field of subject matter, with consideration of its nature, development, and methods, using a chronological approach with a philosophical emphasis. Special attention is paid to the interrelations of the various sciences, the relations of science (including the social sciences and psychology) to other fields, such as philosophy, religion. and art, and the interactions of science and these other areas of thought and culture throughout history and in current times. Discussion, 2 periods.

82:190. Orientation to Science Teaching- $\mathbf{2}$ hrs. Nature of science in its descriptive, technological and investigative aspects as they relate to the development of a philosophy of teaching: interrelation of various sciences; psychological theories of learning science and how ihey relate to developing instructional strategies. Required for certification to teach secondary school science; to precede student teaching. Discussion, 2 periods.
82:194(g). Current Curricula in Junior High Science- $\mathbf{2}$ hrs.
Discussion and laboratory experience in modern curricula; the Intermediate Science Curriculum Stury (ISCS), Introductory Physical Science (IPS), Time, Space and Matter (TSM). The Earth Science Curriculum Project (ESCP), and others. Discussion, 1 period; lab., 2 periods.
82:198. Independent Study. See pp. 57, 75.
82:200. History and Philosophy of Science-2 hrs.
82:270. Special Problems in Science Education - $1-6$ hrs.

Problems selected according to needs of students. Prerequisite: approval of Science Education Coordinating Committee.
82:280. Seminar in Science Teaching-2 hrs.
82:299. Research.

Dean Clifford G. McCollum



## Interdisciplinary Courses and Majors

In addition to programs and courses offered in the strict collegiate structure, the university offers a variety of interdisciplinary curricula to meet the growing need and interest in work beyond collegiate division. The following courses and programs are under the supervision and jurisdiction of several committees, departments, or colleges as indizated. The courses and programs include:

Humanities Courses<br>Humanities Major<br>Asian Studies Major-Teaching<br>Asian Studies Minor<br>American Studies Major<br>Latin American Studies Major<br>Russian Area Studies Major<br>Individual Studies Major<br>General Studies Major<br>Environmental Perceptions Minor

## Humanities

There is no humanities department as such. The courses below are interdisciplinary and are taught jointly by staff from several departments.

## 68:021. Humanities I- -4 hrs.

Literature, philosophy, religion, and the fine arts, integrated with the history of Western Civilization (ancient times through the reformation).

68:022. Humanities II-4 hrs.
A continuation of $68: 021$ (from the 17th century to the present).

68:124. Foreign Area Studies-China- $\mathbf{3}$ hrs.
A historical treatment of significant elements of Chinese culture and major aspects of modern China's transformations since the mid-nineteenth century.
68:125. Foreign Area Studies-India- $\mathbf{3}$ hrs.
A historical treatment of significant elements of Indian culture and major aspects of modern India's transformation under British rule and since independence.

68:130. Culture of the Ghetto- $\mathbf{3}$ hrs.
Various aspects of the black experience: economics, psychology, education, sociology. Provides the student an opportunity to meet blacks from all walks of life, to travel to various ghettos in the country, to work with black children. May be repeated for an additional 3 hours of credit.

68:131. Practical Experience in Ghetto Living-2 hrs. Student to spend at least 5 hours a week working in a ghetto on a self-optioned or assigned project; may include work in public school system, volunteer bureaus, and/or community social agencies. Project to be approved by the instructor at time of enrollment. Prerequisite or corequisite: 68:130. May be repeated for an additional 2 hours of credit.
68:165(g). Tragedy-3 hrs.
The interpretation of classical, Christian, and modern works portraying the human encounter with suffering and death.
68:168(g). Mythology- 3 hrs.
Emphasis on Green and Roman literature.
68:189(g). Seminar in Environmental Problems -3 hrs .
Experience in environmental problem solving fit both a theoretical and practical nature. Prerequisii, Consent of instructor.
68:194(g). Seminar on Death and Dying- $\mathbf{3}$ hrs.
Ideas and research concerning the anticipation of dying, toward the goal of sensitive communicat with those most affected by death-the suicidal, the terminally ill, and the grieving.
68:198. Independent Study.
(See pp. 57, 75.)
HUMANITIES MAJORThis is an interdisciplinary major offered by the College of Humanities and Fine Arts, and isunder the jurisdiction and supervision of the dean of that college.
Required: 68:021; 68:022 ..... 8 hours
*Interdisciplinary courses in, or including, the Humanities ..... 9 hours
Courses in history, from any department ..... 6 hours
Critical and analytical courses ..... 6 hours
Participatory courses in one creative or performing art ..... 6 hours
Electives in any of the above or other Humanities areas ..... 9 hours44 hours
*These courses may include seminars in the interpretation of texts, in philosophy of history, in aesthetics, in a theme or period, in a topic relating the Humanities to the natural or social sciences, or other appropriate courses as available.

It is recommended that at least three courses center on the same chronological period. At least two courses should focus on the contemporary period; at least two outside the contemporary period.

It is recommended that at least four courses be integrated by being in the same academic discipline or by dealing with a common theme or problem.

All reasonable variations on this program should be approved.


The programs and general courses in the non-Western foreign area studies are offered under the jurisdiction of the Committee on Asian Studies and the general supervision of the Dean of the College of Business and Behavorial Sciences.

## ASIAN STUDIES MAJOR-TEACHING

Required: 68:124; 68:125

6 hours

Required: 90:190 ................................................................................ 3 hours
Required: 96:182; 96:187........................................................................ 6 hours

Electives in Asian Studies: a minimum of 18 hours of credit from at least four different disciplines must be completed from the following courses (a maximum of 6 hours credit in Hindi or Chinese language courses may be applied toward satisfying the 18-hour elective credit requirement)

18 hours
Anthropology: 99:136 Anthropology of South Asia
Art: 60:147 Oriental Art
Geography: 97:150 Regional Geography
History: 96:181 Pre-Modern South Asia
96:183 Pre-Modern Chinese History
96:184 East Asia to 1850
96:185 East Asia since 1850
96:188 South Asian Intellectual History
Language: Elementary Hindi I and II Intermediate Hindi I and II Elementary Chinese I and II Intermediate Chinese I and II
Political Science: 94:165 East Asian Governments and Politics
94:167 Political Thought of South Asia
94:168 Politics of South Asia
Religion: 64:130 Religions of India
64:132 Religions of China and Japan
Supervised Research Project: 68:198 Independent Study (to be supervised by the Asian Studies Committee).

Note: The student must also satisfy certification requirements.

## ASIAN STUDIES MINOR

Required: 68:124 and 68:125 .................................................................. 6 hours
Required: one additional course each in China and India (to
be chosen from the list of Asian Studies Major electives) ............................. 6 hours
Required: 68:198 (to be supervised by the Asian Studies Com-
mittee) combining Asian Studies and the student's major
discipline ...................................................................................................
AMERICAN STUDIES MAJOR
This is an interdisciplinary program offered jointly by the College of Business and BehavorialSciences and the College of Humanities and Fine Arts, and is under the jurisdiction of the heads ofthe departments of History and English Language and Literature.
Required: 3 courses in American history 9 hours
Required: 3 courses in the social sciences* ..... 9 hours
Required: 3 courses in American literature ..... 9 hours
Required: 3 courses from religion, philosophy, theater, art, or music ..... 9 hours
Required: senior colloquium** ..... 3 hours
39 hours
(*economics, geography, political science, sociology and anthropology)**Colloquium to be an exploration of the total culture of an era or region in historical perspec-tive by applying the disciplines of history, literature, art, philosophy, and the social sciences.
Courses used to meet General Education requirements may not be counted on this major.
Courses from the four specified areas must be chosen from a selected list approved by thestudent's adviser.
Note: This major does not carry certification to teach. In order to teach, the student should declare a major in either history or English on a teaching program and make the major in American Studies a second major.

## LATIN AMERICAN STUDIES MAJOR

This major is offered jointly by the College of Business and Behavorial Sciences and the College of Humanities and Fine Arts.
Required Spanish*-
78:051 and 78:061 for 5-10 hours
78:071 or 78:072 ..... 3 hours
Two courses from 78:112, 78:142, 78:144 ..... 5-6 hours
Electives in Spanish ..... 0-6 hours
24 hours
Required Social Science-
96:179; 96:180 ..... 6 hours
At least 15 hours in Latin American courses in two of the following areas: economics, political science, sociology, geography ..... 15 hours
21 hoursTotal-45 hours
*78:051 and 78:061 may each be repeated once for credit.
*Students with no language competence will be required to take an additional 5-10 hours of Spanish at the elementary level.

Note: This major does not carry certification to teach. In order to teach, the student should declare a major in one of the social sciences on a teaching program and take the major in Latin American Studies as a second major.

## RUSSIAN AREA STUDIES MAJOR

This interdisciplinary major is under the direct jurisdiction of the Dean of the College of Humanities and Fine Arts.

Required: a total of 45 semester hours as follows-
Required Russian-22 semester hours:
Intermediate Russian, including either 77:051 or 77:061 ........................... 5 -10 hours
Russian Literature which may include 77:102, 77:103 or other 100-level Russian Literature course ........................................5-6 hours
77:141....................................................................................... 3 hours
Electives in Russian to complete the 22 hours
22 hours
Required Social Science- $\mathbf{2 3}$ semester hours:
Soviet Union Courses including 92:137; 94:164; 96:155, 96:169; 96:170; 97:150; and
6 hours of electives in European history ............................................... 23 hours
Hours of history in required Social Science will meet minimal standards to teach in World History.

Note: This major does not carry certification to teach. In order to teach, the student should declare a teaching major in one of the social sciences or in another teaching program and take the major in Russian Area Studies as a second major.

## INDIVIDUAL STUDIES MAJOR

This is an interdisciplinary program administered under the Individual Studies Program by the program Director and the Individual Studies Board. (Members of the Individual Studies Board include both faculty and students.) This program requires the completion of $124-130$ semester hours, including the General Education requirement of 40 semester hours.

$$
\begin{aligned}
& \text { Required: a Coherent, Interdisciplinary Area of Study ................................ 30-44 hours } \\
& \text { Required: Undergraduate Thesis................................................................ } 6 \text { hours } \\
& \text { Required: Elective or other major or minor credit which may } \\
& \text { include courses required for certification } \\
& \text { 34-54 hours } \\
& \text { 84-90 hours }
\end{aligned}
$$

Through the Individual Studies Major a student can plan a specific program of courses in an academic area not yet formally developed by any university department as a major. The purpose of this major is twofold: 1) to enable a student to organize his own major out of the courses offered in several academic departments; 2) to explore, through individual student programs, interdisciplinary areas of study before those areas are formally adopted as departmental or interdepartan mental majors.

Students interested in this major should have at least one semester's experience in university study before applying for such a major. A student will consult first with the Director of Individual Studies concerning a possible application for an Individual Studies Major in a particular area. If the university does not have faculty or curricular resources for the area requested by the student, he will be so advised. Also, if the student does not yet appear to be academically prepared, or, if his plans are not sufficiently clear, specific steps will be recommended by which he may gain such preparation and clarification. Applications for the major and the approval of particular programs will be administered under the Individual Studies Program with the Individual Studies Board serving as the policy-making body.

Upon the application of the student, the Individual Studies Director will ask for the assignment of a faculty adviser by the department head whose discipline is related to the student's individual study area. Once the adviser is appointed, the student and the adviser will develop a list of the courses to comprise the proposed major, and an interdisciplinary faculty committee will be selected by the Individual Studies Board with responsibility to take action on the specific program. In some cases, with the approval of the faculty adviser and the program director, an extraordinary amount of independent study may be counted toward the major. In most cases, an Undergraduate Thesis will be required of this major.

## GENERAL STUDIES MAJOR

This major is offered under the jurisdiction of the Individual Studies Board, and is supervised by the Director of Individual Studies. The program requires the completion of 124 semester hours, including the General Education requirement of 40 semester hours.

Required: a minimum of 15 semester hours of 100 -level courses
from each of three of the four undergraduate colleges for
a minimum total of
45 hours
Only those students who have no other major may declare and be registered for a General Studies major.

An adviser will be assigned to each student declaring this major when the student requests a specific faculty adviser from the Coordinator of Academic Advising. Such advisers may be faculty members from any of the four undergraduate colleges.
(See page 62 for General Studies program for Registered Nurses.)

## ENVIRONMENTAL PERCEPTIONS MINOR

This is an interdisciplinary minor offered under the jurisdiction of the Environmental Perceptions Committee and the general supervision of the Dean of the College of Natural Sciences.

Required: 84:021; 65:170; 68:189 (Environmental Problems) 9 hours
*Electives: a minimum of 12 semester hours of credit (of which
at least six hours must be from 100 -level courses) from disciplines other than the major must be completed from courses approved by the Environmental Perceptions Committee .................... 12 hours 21 hours
*A list of approved courses is available in the office of the Dean of the College of Natural Sciences.

With this minor, a student may plan a specific program designed to complement his major. Because the Environmental Perceptions Minor is planned to broaden the student's awareness of environmental issues as these relate to his major discipline, the student interested in this minor should have a clear grasp of the major field before applying for such a minor.

Applications and approval of particular programs will be administered under the College of Natural Sciences, with the interdisciplinary Environmental Perceptions Committee serving as the program coordinating body. Upon application of the student, the Dean of the College of Natural Sciences will appoint a faculty adviser from the Environmental Perceptions Committee who will work closely with the student in the planning of his minor. Approval of the minor prospectus is the responsibility of the Environmental Perceptions Committee.

The Graduate Program at the University of Northern Iowa is continuing to expand to meet the increasing demands of higher education. The university was authorized by the State Board of Regents in 1951 to offer a program of graduate work leading to the Master of Arts in Education degree, and the program began with the summer session of 1952. The graduate program was extended in 1960 with the addition of a sixth-year program leading to the Specialist in Education degree. These programs were developed to prepare professionally competent personnel in education-highly qualified teachers, supervisors, administrators, school psychologists, and specialists in various fields for elementary and secondary schools as well as for colleges.

In recognition of a more general need for advanced study, the university further expanded the graduate program in 1965 with the addition of the Master of Arts degree. This degree is open to students who plan to pursue careers in fields other than education and is available, as well, to students interested in doing advanced work in teaching fields-elementary, secondary, and college level. More advanced study in these areas was made possible under the program leading to the Specialist degree inaugurated in 1970.

The addition of the Master of Business Administration degree in 1975 demonstrates the university's continued recognition of the changing needs in higher education and the institution's desire to meet these needs. This degree is open to students whose career interests are in the fields of business and is structured in its presentation to those already working in the general community as well as students who have not yet entered their major career field.

Graduate majors are available in most departments, and graduate-level courses are offered by all departments of the university. The University of Northern Iowa offers these five graduate degrees:

> Master of Arts in Education
> Master of Arts
> Master of Business Administration
> Specialist in Education
> Specialist

A cooperative program leading to the $\mathrm{Ph} . \mathrm{D}$. degree in educational administration is also available. (See page 240.)

Those who wish to continue their professional and cultural growth without fulfilling the requirements for a graduate degree may do so if they satisfy the requirements for admission to graduate study. All students taking work beyond the bachelor's degree, whether they are studying for an advanced degree or not, are classified as graduate students. Detailed information on the university's Graduate Program may be obtained from the Dean of the Graduate College, Administration Building, Univerity of Northern Iowa, Cedar Falls, Iowa 50613.

The University of Northern Iowa is a member of the Council of Graduate Schools in the United States.

## The Quad-Cities Graduate Study Center

The University of Northern Iowa is one of nine colleges and universities of Iowa and Illinois which are participating in the Quad-Cities Graduate Study Center, with offices in Rock Island, Itlinois. The cooperating institutions offer graduate courses, and appropriate courses completed at
the Center may be regarded as residence credit by the institution at which the student is working toward a graduate degree. An interested student should confer in advance with the head of his major department. Preliminary inquiries may be directed to the Dean of the Graduate College.

## ADMISSION TO GRADUATE STUDY

(This section applies to all students taking graduate courses at the University of Northern Iowa after receiving the bachelor's degree.)


#### Abstract

APPLICATION Anyone possessing the bachelor's degree from this or any other recognized institution who wishes to register for either undergraduate or graduate credit in this university must make application for admission to graduate study through the Registrar. Seniors in their final semester in this university who are within 14 semester hours of graduation, or in their final summer session and within seven (7) hours of graduation, and who wish to register for graduate credit in that semester or summer session must apply for admission to graduate study. The combined total of course credits (undergraduate and graduate) may not exceed 15 semester hours in a semester or eight semester hours in a summer session. The graduate work thus competed will be counted as graduate credit only if the student actually earns the bachelor's degree at the end of the given semester or summer session. In registering for such mixed credit, the student must obtain on the reverse side of the registration form written approval for each graduate course from the Head of the Department in which the course is offered.


A student who expects to earn a graduate degree at this university must file a transcript from the college or university granting the baccalaureate degree if other than the University of Northern lowa. A student who has earned graduate credit at another college or university must file an official transcript of such credit. A student who does not hold a teaching certificate and expects this university to recommend him for an original certificate must also file an official transcript. However, students who do not expect to become degree candidates and who do not expect the University of Northern lowa to recommend them for certificates do not need to file transcripts. An official statement of the degree and date awarded will be sufficient.

Although the University of Northern Iowa no longer requires a physical examination and medical history as part of the admission process, an acceptable medical history form must be completed and on file at the Health Center before receiving treatment, this includes furnishing evidence of a tuberculin skin test having been taken with the last year. At times, a complete history and physical examination will be necessary to aid in accomplishing proper diagnosis and treatment. If this is necessary, the physical examination and medical history can be done at the Health Center. A fee will be charged for this service.

Diphtheria and tetanus booster immunization shots should be obtained every ten years, in accordance with current recommendations of the United States Health Service. Tuberculin negative persons are advised to have a tuberculin skin test annually, in accordance with a recommendation of the Iowa Tuberculosis and Respiratory Disease Assocation.

## TYPESOF ADMISSIONS

1. Unconditional admission to graduate study will be granted a student if:
a. He is a graduate of a college or university accredited by the National Council for Accreditation of Teacher Education or by the North Central Association of Colleges and Secondary Schools or by a corresponding regional accrediting agency.
b. All the necessary papers and information have been filed with the Registrar.
c. There is nothing in the student's undergraduate record or other data to indicate that he is of doubtful promise as a graduate student.
2. Conditional admission to graduate study may be granted a student if:
a. At the time of registration some of the required information and data have not been received by the Registrar.
b. The student has not completed the work for the bachelor's degree at the time he applies for admission to graduate study.
3. Probational admission to graduate study may be granted (each case is considered on an individual basis) to a student if:
a. He is a graduate of a college that at the time of his graduation was not accredited by the National Council for Accreditation of Teacher Education or by the North Central Association of Colleges and Secondary Schools or by a corresponding regional accrediting agency.
b. His undergraduate record and other data indicate that he is of doubtful promise as a graduate student.
The conditional admission status will be removed by the Registrar as soon as the student has filed all the required records and reports, or in the case of a senior, he has received the bachelor's degree.

The probational admission status may be removed by the Registrar when the student has earned 8 hours of graduate credit in this institution with an average grade of B or higher.

Note: Individuals who have received unconditional admission to graduate study should not assume that they will be accepted by a department in a program of study leading to a graduate degree. Admission to candidacy is a subsequent, separate step (see page 206).

## Grade Point Requirements

Graduate students are expected to maintain high academic standards. At th end of each term graduate student records are reviewed, and students with unsatisfactory performance are placed on probation, or advised to discontinue graduate study, or suspended.

Following are the categories used for review and action by the Graduate Council:

1. Failing more than one-half of all work attemped-Suspend
2. After three (3) enrollments or 15 semester hours
a. Cumlative average less than 2.00 -Suspend
b. Cumlative average of $2.00-2.49-$ Review for probation
3. After twenty-four (24) semester hours
a. Cumlative average less than 2.20 -Suspend
b. Cumulative average 2.20-2.49-Advise to discontinue graduate study
c. Cumulative average $2.50-2.80-$ Review for probation
4. If students complete two enrollments while on probation without qualifying for removal of probation, they are advised to discontinue graduate study.
In determining a graduate student's grade index, all course work attempted in graduate study at this university will be used as the basis of computation. If a graduate student repeats a course, both grades are counted in computing the index.

Post-baccalaureate students enrolled for work to meet requirements for certification as elementary or secondary teachers are given the same grade index advantage as is given undergraduate students for courses repeated (see page 53). This applies only to those courses required for certification.

## REGULATIONS AFFECTING REGISTRATION

Each student admitted to graduate study is assigned an adviser. The adviser will assist the student in the registration process, involving the selection of courses and such other matters as:

1. The General Graduate Examinations. These examinations are administered by the Office of Institutional Research during the period of the graduate student's first registration. The Miller Analogies Test, a test of general academic ability, is required of all graduate students in most departments. A Professional Examination, an instrument measuring professional interest, attitudes, and understandings, is required of (1) all students on the Master of Arts in Education program except those majoring in College Student Personnel Services, (2) students on the Master of Arts program taking the non-thesis plan and Professional Core A, and (3) all students on specialist degree programs. The Graduate Management Admission Test is required for the Master of Business Administration degree. The university will assess a minimal fee for these examinations.
2. Maximum Academic Load. The maximum graduate student load during each semester of the academic year is 15 hours; that permitted during the eight-week summer session is 8 hours; that during the two-week post session, 2 hours. Persons employed full time should not register for more than $\mathbf{6}$ hours of graduate credit in any semester.
3. Level of Courses. Graduate students normally take courses in the $100(\mathrm{~g})$ series and 200 series. A graduate student may take courses in the 100 series (without " $g$ ") or below for undergraduate credit, but such courses do not carry graduate credit. However, all courses, graduate or undergraduate, taken as a graduate student, count in determining grade point average.
4. Credit From Other Institutions. A maximum of 10 semester hours of graduate credit earned in another accredited institution may be applied toward meeting the minimum requirements for a master's degree at the University of Northern Iowa.
5. Veterans. The university cooperates with the Veterans Administration in providing for the education of veterans under the provision of federal laws. Dependents of veterans or of those persons who may be classified as prisoners of war or missing in action may also receive financial assistance from the Veterans Administraion. The Office of Veterans Affairs and the Office of the Registrar will assist students eligible under any of these laws and provide the required reports. Subsistence will depend upon the number of course hours for which the student enrolls. University officials are authorized to make certain exceptions in the matter of veterans doing graduate work. Questions should be referred to the Coordinator of Veterans Affairs.

## GRADUATE ASSISTANTSHIPS

Several kinds of assistantships are available to qualified graduate students who are working toward a graduate degree at UNI. Graduate assistantships and teaching assistantships are available through the Graduate College under the following conditons:

1. Graduate Assistantships are available for graduate students who are in residence through the academic year. These assistanships require the students to carry 9-12 hours of course work each semester. Most of the assistantships for students working toward the master's degree carry a stipend of $\$ 1,960$, but stipends may range up to $\$ 2,700$. The associated work assignments vary from 10 to 15 hours per week. For students working toward a specialist's degree, the stipend is usually $\$ 2,200$; in special cases the stipends could be between $\$ 2,200$ and $\$ 2,700$. The associated work assignments vary from 12 to 15 hours per week. For both the master's and specialist's assistantships, the work of the student will be so arranged that he may normally complete his degree program in one academic year plus the equivalent of one or two summer sessions. Work assignments consist of assisting designated professors with certain non-teaching functions; some graduate assistants serve as aides on faculty research projects.
2. Teaching Assistantships are available for graduate students who hold the master's degree and are working on the specialist's degree and who are in residence through the academic year. The teaching position must be in the area of specialization. These provide a varying stipend up to a maximum of $\$ 3,500$ for the academic year. Teaching assistants will carry a partial course-work load and will instruct, under careful supervision, introductory courses; the combination of teaching load and course-work may not exceed 12-15 credit hours per semester.
With the exception of the student activities fee, which is required of all students and which is subject to change without notice, the two assistantships listed above include a tuition scholarship for the academic year and the following summer session.

Application forms may be obtained from the office of the Dean of Graduate College or the department in which the student is applying for an assistantship. Applications should be filed by March 1 with the department.

Recommendations for awarding of assistantships are made by department head to the dean of the given college who selects the recipients from the college. Appointments are announced by the Dean of the Graduate College.

Graduate Resident Advisers-In addition to the above, assistantships are available for graduate students who are interested in working and living in the residence halls. These assistantships involve a variety of responsibilities and experiences, usually directly related to the student's formal program of graduate study. The graduate resident adviser assistantship is for the academic year only, and the student is expected to work from 15 to 18 hours per week. The assistantship carries a stipend of $\$ 1,600$ plus room for nine months and allows a student to carry a maximum of 11 hours of graduate work each semester.

With the exception of the student activity fee, which is required of all students, this assistantship includes a tuition scholarship for the academic year.

The graduate resident advisers are utilized in the Division of Student Services. Application forms for this assistantship may be obtained from the Office of the Director of Housing and must be filed with that office no later than June 1.

## SCHOLARSHIPS

The Mary Jensen Shackelford Award, established in 1968, is available to graduate students at the University of Northern Iowa who are seeking a Master of Arts in Education degree. To be eligible, a student must have at least six hours of graduate work at this institution with a minimum
grade point average of 3.0 and desirable personal and professional qualifications as determined by the selection committee. Each award is for $\$ 500$ and will be made to a full-time graduate student for the regular academic year only. Additional information on the award may be secured at the Office of the Dean of the Graduate College and the Office of the Director of Financial Aids.

One of the Martin J. and Cora G. Nelson Scholarships is awarded to an outstanding graduate student specializing in higher education, educational administration, or student personnel services. To be eligible, the student must have earned at least 15 semester hours of graduate credit at the University of Northern Iowa and have been admitted to candidacy for a graduate degree. Inquiries may be directed to the Office of the Dean of the Graduate College and the Head of the Department of School Administration and Personnel Services.

The Wray D. Silvey Award is made to an individual who has demonstrated an interest in public school personnel work, has an above average academic record, possesses potential for leadership, and is pursuing graduate study at UNI. Inquiries may be directed to the Head of the Department of School Administration and Personnel Services and the College of Education Scholarship Committee.

Ida Mae Wilson Scholarships are based on the following criteria: (1) need, (2) leadership, (3) high academic standing, (4) promise as a future teacher. Interested students should apply to the Director of Financial Aids at the University of Northern Iowa.

## LOANS

Qualified students may secure loans from either the National Defense Education Act fund of the Aubrey and Winslow Grubb fund. These loans are available to graduate students who are on a continuous program and who meet certain standards of scholarship. Information about both types of loans may be secured at the Office of the Director of Financial Aids.

## PART-TIME EMPLOYMENT

The Director of Financial Aids will assist graduate students who need part-time employment. A limited number of opportunities for such work are available on the campus. However, to carry a full load of graduate studies requires so much of ths student's time that part-time employment is usually unwise. Individuals who have full-time employment should not register for more than 6 semester hours of work in any one semester or 3 semester hours of work in the 8 -week summer session.


## Master's Degree Programs

## COMMON REGULATIONS AND REQUIREMENTS

## Admission to Candidacy

Admission to candidacy is not the same as admission to graduate study. A student may wish to take only selected courses and have no intention of becoming a degree candidate. A student who wishes to earn the master's degree must first be admitted to graduate study, and then seek admission to candidacy for the degree. Admission to candidacy is granted after the conditions explained below have been met. Students must have a cumulative grade point average of at least 3.00 for courses taken as a graduate student to be eligible for candidacy.

Application for candidacy is normally made soon after the first semester or summer session of residence work and candidacy must be approved before the beginning of the semester or summer session in which the student expects to receive his degree. The forms on which the application is made are available in departmental offices. The application is left with the head of the major department. Unconditional admission to graduate study is a prerequisite for the approval of candidacy for the master's degree.

The department in which the application for candidacy is filed may recommend the applicant to the Dean of the Graduate College for approval as soon as:

1. The General Graduate Examinations, if required, have been completed successfully. The Graduate Management Admission Test is required for the Master of Business Administration degree.
2. The Departmental Candidacy Examination has been completed successfully.

This examination is prepared and administered by the department in which the student plans to pursue a major. The examination may be either written or oral or a combination of the two. Performance tests related to the special skills in such areas as art, music, speech, and business education may be included as part of the candidacy examination for students pursuing majors in these areas. Each student should consult with his department head concerning the nature and content of these examinations.

The departmental examinations are conducted periodically and the student should consult the head of the department as to the time and place. The student will usually take this examination during the first semester of residence.
3. Either the thesis plan or the non-thesis plan has been designated by the student. On several majors, students selecting the non-thesis option must also complete either Professional Core A or Professional Core B. For most of the majors leading to the Master of Arts in Education degree, the student must hold or be eligible for an Iowa Professional Teaching Certificate; teaching expnce may also be required.
4. A program of studies prepared by the candidate and the adviser has been approved by the departmental committee. This committee, with the student's adviser, has responsibility for the review of the student's program of studies to insure balance, breadth, and needed specialization. Each department offering a graduate major has one or more departmental committees.
5. The departmental committee recommends candidacy.
6. The application has been approved by the department head.
7. The application has been approved by the dean of the approria ollege.

The Dean of the Graduate College may approve the appli ; on at once or may delay action until additional scholarship or other data are available or 子ay return it to the department with comments. The Dean of the Graduate College is in general charge of each graduate student's program.

Thesis Committee. For the student following the thesis plan, the thesis committee is appointed by the Dean of the Graduate College after his approval of the student's application for candidacy. It usually consists of the student's adviser as chairman and two additional faculty members. The committee assists the student in further defining his course work, in supervising his research and writing, and eventually accepts or rejects the thesis.

The nature of the thesis is described on p. 209.
Selection of Thesis Topic. The student following the thesis plan of study is urged to make at least a tentative selection of a topic by the end of his first semester in residence. The delineation of an exact topic is not necessary before applying for candidacy, but the designation of a probable area of study must be made.

## Graduation Requirements

Thesis Plan:

1. A minimum of 30 semester hours of graduate credit, of which at least 24 hours must be in course work excluding thesis research credit. At least 20 semester hours must be earned at the University of Northern Iowa.
2. A minimum of nine (9) semester hours in 200 -level credits other than $\mathrm{xx}: 299$ Research, plus six (6) semester hours in xx :299 Research (for thesis).
3. The course requirements for a specific major and any additional courses designated by the departmental committee.
4. Core requirement.

Master of Arts in Education
20:214 Advanced Educational Psychology-2 hrs.
or
26:234 Philosophy of Education-2 hrs.
25:294 Educational Research-3 hrs.
Master of Arts
Varies with the major. See pp. 217 to 230.
Master of Business Administration
No core required.
Non-Thesis Plan:

1. The minimum number of hours of graduate credit varies with the major. All include at least 30 semester hours. (see pp. 213 to 232.) At least 20 semester hours must be earned at the University of Northern Iowa, of which at least six (6) semester hours must be earned in a single semester or summer session.
2. A minimum of nine (9) semester hours in 200 -level credits other than xx 299 Research, plus 3 additional semester hours of 200 -level credits which may or may not be in xx:299 Research depending upon the policy of the major department and the specific study plan formulated for the individual student.
3. The course requirements for a specific major and any additional courses designated by the departmental committee.
4. Core Requirements:

Master of Arts in Education
20:214 Advanced Educational Psychology-2 hrs.
or
26:234 Philosophy of Education-2 hrs.
25:294 Educational Research-3 hrs.
Master of Arts
Professional Core A or Professional Core B-required only by certain majors.

Master of Business Administration
No core required.
Professional Core A (prerequisite: Iowa Professional Certificate or equivalent)
20:214 Advanced Educational Psychology-2 hrs. or
26:234 Philosophy or Education-2 hrs.
25:294 Educational Research or
a departmental course in Research and Bibliography
A course in curriculum or methods of instruction in the major field or any additional course numbered 200 from courses in the 20: through 29: series.
Professional Core B (Students completing Professional Core B with an appropriate distribution of courses in one or more subject areas may be recommended for Iowa Public Junior College certification. Iowa requires a course in American history or American government for all certification.)
27:252 Current Issues in Higher Education-2 hrs. (or 3 hrs.)
27:250 Teaching in College-3 hrs.
:297 Practicum-2 hrs.
5. At least one research paper approved by the department and filed in the departmental office.

## Other Requirements and Criteria

1. Scholarship. A cumulative grade index of 3.00 (B average) must be earned at the University of Northern Iowa in all courses attemped as a graduate student. No credit toward graduation is allowed for a course in which a grade below C is earned.
2. Recency of Credit. Courses taken more than 7 years prior to the granting of the degree cannot be used to meet degree requirements.
3. CANDIDACY. The requirements for candidacy are described on pp. 206-207.
4. Transfer Credit. Graduate credit from other approved institutions may be accepted to a maximum of one-third of the total amount of credit included in the student's graduate study plan. However, if use of a correspondence course is authorized, the permissable amount of transfer credit is correspondingly reduced. Application of transfer credit is toward a graduate major is dependent upon its acceptability in the judgement of the major department.
5. Correspondence Credit. Correspondence courses may not ordinarily be applied toward a graduate degree program. In unusual circumstances a student may request that a maximum of 3 semester hours of 100 -level correspondence credit may be applied to a graduate degree program. The request must be made prior to registering for the course.
6. Radio and Television Class Credit. Credit earned in radio and television classes usually may not be applied toward the master's degree.
7. Saturday. Evening. and Short-Term Classes. Some classes are scheduled for Saturday morning, or for an evening, or for extended sessions daily for two or three weeks. These classes differ from other residence classes only in that they involve fewer meetings and longer single sessions. Such classes are offered in Cedar Falls and at other announced locations in various parts of the state. Lists of the classes may be secured by writing to the Office of the Registrar during the month preceding the opening of a semester or summer session.
8. Changes in Course Numbers. etc. Occasionally the university makes changes in course designations: title, number, or hours of credit. A graduate student continues to use the designations as they existed at the time he was enrolled in a given course.
9. Examinations. Thesis Plan. In addition to whatever examinations are required for each course, the candidate for the degree on the thesis plan will take (1) General Graduate Examinations, as required (see p. 203), and (2) the Departmental Candidacy Examination (see p. 206). Further, if final written and oral examinations are required by his thesis committee and his major department, the candidate will be required to pass them.

Non-Thesis Plan. The candidate for the degree on the non-thesis plan is required to take the same examinations required on the thesis plan and in addition, (3) a Final Comprehensive Examination (which may be written or oral), which is prepared and administered by the major department. Results must be reported to the Office of the Dean of the Graduate College at least 15 days before semester Commencement and at least one week before summer session Commencement.
10. Research Credit. Registration for 299 Research will not be accepted until the student has submitted a statement or outline of the proposed research project and has secured the approval of the person directing the research project and the head of the appropriate department. A copy of the completed research report, approved by the director of the research project and the department head, will be filed in the departmental office.

Research carries residence credit and may be pursued either on campus or off campus, but not in an extension class. There is no prerequisite, although it is strongly recommended that 25:294 Educational Research or a departmental course in research be completed before registering for Research. It is expected that the work will be completed during the given semester or summer session.
11. Residence. At least two-thirds of the total minimum hours required for either the thesis or non-thesis plan must be taken with members of the UNI faculty; this is exclusive of thesis credit. Correspondence credit may not be counted in the above hours. At least six semester hours must be earned in a single semester or summer session.

After a student has been admitted as a candidate for the master's degree in this university, and provided that prior arrangements have been made with the Dean of the Graduate College, he may take work at the University of Iowa, Iowa State University of Science and Technology, or the Quad-Cities Graduate Study Center for which residence credit may be given at the University of Northern Iowa.
12. Thesis. A thesis is required of all candidates who choose the thesis plan of study. Because the thesis is considered to serve a functional need, no attempt is made to limit the topics considered acceptable.

The thesis may take the form of studies, experiments, surveys, compositions, creative work, and projects and may concern itself with such matters as methodology, understanding children, and materials of instruction, or may delve rather deeply into some aspect of a specialized academic field. Whatever the nature of the subject, its development into an acceptable thesis is considered to contribute to the growth of such attributes as maturity of judgment, initiative, writing ability, and organizing ability. While the thesis may make no significiant contribution to the world's knowledge, its preparation should develop in the writer a broader understanding of the world's knowledge and a more genuine appreciation of the research efforts of others.

The work on a master's thesis will normally be considered to cover about 6 semester hours of work. To earn this credit, a student registers for Research and usually not in one block. The instructor will assign a grade for a semester's registration in Research based upon the progress made, but may assign an Unfinished ( $U$ ) if he feels the work has not reached the place where it can be evaluated. Registration for the last segment of Research credit for which a student registers (for work on his thesis) should be postponed until the thesis is near completion. The Dean of the Graduate College may authorize the extension
of time for the completion of an Unfinished in Research up to one additional calendar year; but if at the end of that time the work has not been completed, the grade of $U$ will be changed to an $F$ (Failure).

Completion of a thesis project occurs when the thesis has been approved by the Committee and the Dean of the Graduate College.
13. Filing of Thesis. The thesis must be presented in final form to the thesis committee at least 30 days before graduation. A specimen title page and form for final approval may be obtained in the Office of the Dean of the Graduate College. The student must present two acceptable copies, an original and one copy, both on bond paper of either 16- or 20 pound weight; these are retained by the university library. The student's major department may request a third copy for it's files. After the thesis committee has accepted the thesis, the student must transmit the two copies to the Dean of the Graduate College not later than two weeks before semester graduation or one week before summer commencement. When the student has been notified of the acceptance of his thesis, he will secure a fee card to cover the thesis binding cost of $\$ 6$ for the library copies and will pay this fee at the business office.
14. Filing of Abstracts of Thesis. An abstract or summary of the thesis is required of each candidate following the thesis plan toward the master's degree. The abstract will be approximately 500 words in length and will be filed in triplicate in the Office of the Dean of the Graduate College.
15. Application for Graduation. The candidate for the master's degree must make application for graduation not later than the end of the ninth week of the semester or the fourth week of the summer session in which he plans to receive the degree. The application form may be secured in the Office of the Registrar. Applications received after the dates designated will be placed with those for the following session.
18. Attendance at Commencement. The candidate for the master's degree is expected to secure the appropriate academic costume and to appear at Commencement for the awarding of the degree.


## Summary of Hour Requirements

A summary of the hour requirements for both the thesis and the non-thesis plans is listed below:

*Included 6 semester hours for research.
**Includes at least one research paper. Total hours depends on major chosen.
$\dagger$ Must include 6 or more hours in one semester or summer session.
$\ddagger \mathrm{Up}$ to one-third of the hours on the graduate study plan.
\#In addition to the $\mathbf{6}$ hours research credit for thesis.
\#\#In some departments this may include 3 hours of xx:299 Research.

## Certification and Endorsements

Certification. For approval in some graduate programs, a student must have earned or be eligible for an Iowa Professional Certificate or its equivalent endorsed in an area appropriate to the graduate major. Credit earned in education, psychology, or teaching to secure a teaching certificate as a prerequisite to candidacy for the master's degree may not be used toward the master's degree. Iowa requires a course in American history or American government for all certificates. For information on certification, consult the Registrar.

Teaching Certificate and Endorsements. Students interested in securing certificates to teach in another state should secure information directly from the State Department of Public Instruction in that state and should consult the Registrar of his college.

Students with an Iowa Professional Certificate, the master's degree, and four years of successful teaching experience are entitled to an lowa Permanant Professional Certificate with approriate endorsements.

## Second Master's Degree

To receive a second master's degree, a student must meet all the requirements for the second degree with the exception that eight hours of work from the first degree may be used for the second degree. The requirements for work at the University of Northern Iowa, " 200 " work, and all other specific requirements shall be met for the second degree in addition to work completed for the first degree. For all course work taken beyond the first master's degree, the cumulative grade point index must be 3.00 or higher.

## Master of Arts in Education Degree

This degree is designed for students whose work is primarily in professional education. Majors are available in the following areas:

Educational Media<br>Eductional Media<br>Educational Psychology<br>General Educational Psychology<br>School Psychology<br>Teaching<br>Elementary Education<br>Elementary Education<br>Reading<br>Developmental Reading and Language Arts-Elementary<br>Developmental Reading-Secondary<br>Remedial Reading<br>School Administration and Supervision<br>Secondary Principalship<br>Elementary Principalship<br>Elementary Supervision<br>School Business Management<br>School Business Management<br>Special Education<br>Special Education<br>Gifted<br>Student Personnel Services<br>Elementary Guidance and Counseling<br>Secondary Guidance and Counseling<br>College Student Personnel Services

Although a special curriculum is not available for supervisors of student teaching, a student can arrange a program which will qualify him for such a position.

Two plans of study leading to the degree of Master of Arts in Education are available: one plan requires the writing of a thesis; the other does not. The program prescribed for each student depends upon his undergraduate preparation, his experience, and his future plans. The needs of the student as determined by him, his adviser, and his departmental committee are the guiding factors in program planning. Regardless of the plan of study followed, graduate work leading to the degree of Master of Arts in Education should constitute a cohesive, logically planned program, not merely an accumulation of credit in a variety of courses. Only selected students are admitted to candidacy.

Detailed information for each of the above programs, and specific requirements for each major, may be obtained from the head of the department offering the major. These include:

[^4]Department of School Administration and Personnel Services<br>School Administration and Supervision<br>School Business Management<br>Student Personnel Services

## REQUIREMENTS FOR VARIOUS MAJORS

On each curriculum and for each major, the student who plans to receive the degree of Master of Arts in Education must meet the graduate requirements described on pp. 206 to 211.

Many programs at this level carry with them the requirements for certificate endorsement. In some cases, the student may be building up his competency in a field in which he has had little or no preparation at the bachelor's level. For these reasons some of the programs must carry with them a substantial number of specific requirements. Whenever possible, however, an effort is made to keep the specific course requirements for each major at a minimum so that the student, with the help of his adviser and the departmental committee, may plan the graduate program which will best meet his individual needs.

Worksheets showing the specific requirements of each major and emphasis are available in the office of the department which offers the major.

## EDUCATIONAL MEDIA

## Major in Educational Media

The student must hold certification valid for either elementary or secondary school teaching in order to meet certification requirements in this major.

Required: 24:131; 24:135; 24:137; 24:205; 27:220 or 27:227; 24:289; 24:297.
Electives as recommended by the department.

## EDUCATIONAL PSYCHOLOGY

## Major in General Educational Psychology

Competency is required through examination or the following courses: 40:008; 20:100 or 20:116; 25:181; 25:180.

Required: A minimum of 20 semester hours in courses numbered with the prefix $20,25,26$, or $40 ; 15$ hours must be chosen from a selected list.
A student who expects to teach in college should take: 27:250 and 27:252.

## Major in School Psychology

Prior to certification the student must have completed a minimum of one year of successful teaching experience and/or successful completion of 2-6 semester hours of 20:291.

Competency is required through examination or through the following courses: 25:181; 25:180.

Required: $20: 230$ or $20: 142 ; 25: 282 ; 25: 283 ; 20: 194 ; 22: 150 ; 20: 289 ; 20: 290 ; 29: 205 ; 23: 112$ or an acceptable course in reading.
Some of these courses required may be satisfied by previous undergraduate work.
Electives as recommended by the department.

## Major in Teaching

This major is designed to serve the professional needs of experienced teachers.
Required: A minimum of 30 semester hours as follows:
Component I: Advanced Professional course work ................................ 8-12 hours
Component II: Theoretical-Philosophical course work.............................. 8-12 hours
Component III: Advanced Academic course work in one
department
8-12 hours

## ELEMENTARY EDUCATION

## Major in Elementary Education

The student must be fully certified to teach in the elementary schools prior to his completing this major. In addition to the professional core, if the student has not had the following courses or their equivalent, satisfactory completion of the courses or a proficiency equivalent will be required as part of the major: $20: 100 ; 25: 181 ; 25: 180$.

This program has been designed to include a maximum amount of flexibility to permit the student, his adviser and the committee to plan his program in such a way as to assure that it will strengthen him as an elementary teacher or as a college teacher of elementary education. No specific course requirements have been set. For some students, it will permit a maximum amount of depth in one or more subjects; for others, it will allow for breadth; for still others, it may eliminate deficiencies in preparation. However, the program will be carefully planned early in the career of the student to assure maximum benefits.

## READING

## Major in Developmental Reading and Language Arts-Elementary

These courses satisfy the requirements for certification as a reading teacher. The student must be fully certified to teach as an elementary teacher prior to completing this major. Competency is required through examination or the following courses: 20:100; 21:044 or 62:165; 23:110 or 23:130.

Required: 21:210 or $23: 212 ; 23: 113 ; 23: 111$; 21:144; 23:290; 23:289 Trends in Reading and Language Arts.
Required: 2 addiitional hours of $23: 289$ as specified by the Department of Curriculum and Instruction.
Required: 3-6 hours from the following supporting areas: linguistics, library science, art, music, physical education, English, speech pathology, speech.

## Major in Developmental Reading-Secondary

These courses satisfy requirements for approval as a secondary reading teacher. The student must be certified to teach in secondary schools. Competency is required through examination or the following courses: 20:116; 23:130; 23:132; 25:180; 25:181; 62:165.

Required: 23:289; 23:290; 23:147; 23:210; 23:212.
Recommended electives: 24:132; 23:114; 23:140; 23:244.

## Major in Remedial Reading

This major satisfies course requirements for endorsement as a Reading Clinician. Student must be certified to teach in either the elementary or secondary schools. Competency is required through examination of the following courses: 20:100 or 20:116; 23:110 or 23:180; $21: 044$ or 21:144 or $62: 165 ; 23: 147 ; 23: 148 ; 25: 180 ; 25: 181$.

Required: 23:210; 23:212; 23:240; 23:289; 23:290.
Recommended electives: 23:112; 23:113; 23:114; 23:140; 23:192; 23:242; 23:244.

## SCHOOL ADMINISTRATION AND SUPERVISION

The student must complete the usual degree and certification requirements as well as those for the particular endorsement he seeks. He must complete a minimum of one year of successful teaching appropriate to the major prior to graduation.

In addition to the general requirements, a stuḍent will be required to complete:
27:102 and 27:204
Practicum in an appropriate area.
A course in child growth and development, guidance and counseling, educational psychology, or in the area of the exceptional child.

## Major in Secondary Principalship

Required: 27:228 and 27:227.

## Major in Elementary Principalship

Required: 27:221 and 27:220.

## Major in Elementary Supervision

Required: 27:221; 27:141; 27:212; 27:220.

## Note: Superintendency

The program for the preparation of the superintendent of schools is a two-year program. The requirements may be met by completing the appropriate Specialist in Education degree program or prescribed program beyond the master's degree. A program sheet with specific details may be obtained from the departmental office.

## SCHOOL BUSINESS MANAGEMENT

## Major in School Business Management

This major is offered cooperatively by The Department of School Administration and Personnel Services and the Department of Business Education and Office Administration. Students completing the major in the Department of School Administration and Personnel Services are awarded the Master of Arts in Education degree; students completing the major in the Department of Business Education are awarded the Master of Arts degree. For the Master of Arts in Education, the program is as follows:

Required: 27:102; 27:230; 27:240; 27:243.
Electives as approved by chairman and co-chairman.
The student's chairman will be appointed by the Department of School Administration and Personnel Services and a co-chairman by the Department of Business Education. Candidacy and comprehensive examinations will be under the joint jurisdiction of the two departments.

## SPECIAL EDUCATION

The student must be fully certified to teach in either the elementary or secondary schools (depending on the major chosen) prior to completing a major in this area.

Competency is required through examination or the following courses: 20:100 or 20:116 (whichever appropriate), and 22:150.

## Major in Special Education

Required: Professional Core A.
Required: Competency through examination or course work at either the graduate or undergraduate level in 22:170; 22:171; 22:174; and 4 hours of $22: 192$ from tutorial, preacademic, primary, intermediate, or secondary.
Required: Competency demonstrated through proficiency evaluation or course work at either the graduate or undergraduate level in 22:184; 22:252; 22:289; 22:290 and in two of the following courses: 22:180; 22:181; 22:182; 22:183; 22:187.
Required for secondary emphasis only: 22:251.
Electives as recommended by the department.
Major in Gifted
Required: 22:154; 25:282; 21:289; 20:194 or 28:250.
Electives from a selected list-5 hours.

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## STUDENT PERSONNEL SERVICES

The student must complete the usual degree and certification requirements and those for the particular endorsement he seeks.

## Major in Elementary Guidance and Counseling

Required: 29:104; 29:207; 29:210; 29:220 or 29:124; 29:126; 29:227; 29:290 (3 hrs.); 20:270; 25:181.
Student must be certified as an elementary teacher. One year of teaching experience or appropriate internship required for degree.

## Major in Secondary Guidance and Counseling

Required: 29:102; 29:110; 29:203; 29:205; 29:220 or 29:124; 29:210; 29:227; 29:290 (3 hrs.); 25:181.
Student must be certified as a secondary teacher. One year of teaching experience or appropriate internship required for degree.

## Major in College Student Personnel Services

Competency is required through examination or the following courses: 25:278; 25:181.
Certification to teach is not required for this major.
Required: 29:205; 29:230; 29:289; 29:290 (two different practicum experiences-4 hours).
Electives from a selected list-8 hours.


## Master of Arts Degree

A number of curricula lead to the degree of Master of Arts. Programs are available for advanced preparation of elementary and secondary teachers, for college teaching, including programs for Iowa Public Junior College certification and forr graduate study without reference to teaching. The following majors are offered.

Art
Audiology
Biology
Business
Business Education
Chemistry
Communications Media
Counseling
Earth Science
English
English Linguistics
French
Geography
German
History
Home Economics Education
Industrial Arts
Library Science

Mathematics
Mathematics for Elementary Schools
Music
Physical Education
Physics
Political Science
School Business Management
Science
Science Education
Social Science
Sociology
Spanish
Speech
Speech Pathology
Teaching English as a Foreign Language
Teaching English in the Community College
Technology
TEFL and Foreign Languages

The Master of Arts program is a highly flexible one. The plan of study prescribed for each student depends upon his undergraduate preparation, his experience and his future plans. The needs of the student as determined by him, his adviser, and his departmental committee are the guiding factors in course selection. It should be stressed, however, that regardless of the plan of study followed, graduate work leading to the degree of Master of Arts should constitute a cohesive, logically planned program, not merely an accumulation of credit in a variety of courses. On most programs both the thesis and the non-thesis plans are available. Only selected students are admitted to candidacy.

## REQUIREMENTS FOR VARIOUS MAJORS

On each curriculum and for each major, the student who plans to receive the master's degree must meet the graduate requirements described on pp. 206-211.

## Major in Art

Each student's program will be determined by his background and his needs after consultation with his advisor. The department assumes that most candidates for a master's degree will have undergraduate preparation in the field of art.

On admission to graduate study each candidate will have his undergraduate record and a portfolio of his work evaluated to determine what, if any, undergraduate work must be made up before graduate hours will apply to a degree program. In the total preparation for a master's degree (both undergraduate and graduate work) a student is expected to have completed:

A minimum of 60 semester hours in art, including at least 14 hours in art history.
"Equivalent experience" will be taken into consideration by the evaluating graduate faculty group.

Three options are offered: the thesis, non-thesis, and the studio thesis. A minimum of $\mathbf{3 0}$
hours of applicable graduate work, including six hours of graduate art history, is required using any option.

The studio thesis will consist of an exhibition, performance, or project to be evaluated by an assigned studio thesis committee. Slides, reproductions, or other suitable visual record of the thesis are required to be filed, along with catalog information identifying the work. Examples from the thesis will ordinarily be selected and retained. In certain cases, a written statement may also be required by the evaluating committee if it seems pertinent to explain techniques, processes, or attitudes.

If a student wishes to pursue a certificate for endorsement as a supervisor of art, he must have completed four years of successful teaching in art and must include in his graduate program:

60:296
and at least 7 hours from 27:141, 27:212, 27:220; 27:226, 27:227.
Before the master's degree is conferred the student must demonstrate proficiency in his major area. Specific information relative to these requirements and options is available in the office of the Department of Art.

## Major in Audiology

The professional program in audiology is designed to prepare students for careers as clinicians providing services to the acoustically impaired, with primary emphasis on children in public schools. Recommendations for clinical certification will be given only upon completion of all academic requirements. Although this major is available on either the thesis or the non-thesis option, a thesis will be permitted only with the department's approval. The thesis option is recommended for only superior students who plan to continue their study beyond the master's level. The non-thesis plan requires four additional semester hours of course work.

Required in audiology: 27 semester hours of the following courses51:265; 51:270; 51:271; 51:272; 51:273; 51:274; 51:275; 51:258; 51:289.
Required in a related or tool area: 6 semester hours in a single area to be elected by student approved by his adviser. Suggested areas: acoustics, statistics, psycho-physicid measurements, electronics, speech pathology, language pathology.
To meet certification requirements in Audiology of the American Speech and Hearing Association, a student is required to have 12 semester hours in the area of Basic Communication Processes such as:
a) anatomic and physiologic bases of speech and hearing,
b) physical bases and processes in the production and perception of speech and hearing,
c) linguistic and psycho-linguistic variables related to normal use of speech, language or hearing;
and six (6) semester hours in Speech Pathology. The specific courses to be taken will be chosen in consultation with the student's adviser and may be taken before or concurrently with the major sequence, although they are not part of the major sequence.

Comprehensive examination: every student is required to write a six (6) hour examination which would normally be taken during the final semester of study.

A minimum of 275 clock hours of varied and supervised clinical experience is required for the major. All students are required to participate in professional activities a minimum of 15 clock hours per week. Time spent in supervised clinical activities may be counted toward the 275 clock hours of direct supervised clinical work required for ASHA certification as well as audiology practicum.

## Major in Biology

This major is available on both the thesis and non-thesis options. No core is required on either option. Prospective majors must complete an application with the department prior to beginning their programs.

Required: 84:292; 82:200.
Required: 84:289-2 hrs.
Minimum number of hours for the non-thesis option is 37 semester hours, 34 hours plus a three-hour research paper. At least 23 hours must be in the field of biology.

Minimum hours for the thesis option is 30 hours, of which 6 hours is the thesis. At least 12 hours exclusive of research and thesis must be in the Biology area.

## Major in Business

The program for this major leading to the Master of Arts degree is being phased out, and beginning with the 1975 Fall Semester students may not make an initial enrollment under this program. However, any student who has already initiated the M.A. in Business program and who does not wish to convert to the Master of Business Administration degree program must file an Application for Admission to Candidacy for the M.A. degree program in the office of the School of Business by December 31, 1976. The Master of Arts degree with a major in Business will not be awarded after August 31, 1980.
(All students wishing to make the transition from the M.A. in Business program into the Master of Business Administration program should consult with the graduate program adviser.)

The major in Business is a non-teaching program designed to qualify men and women for creative leadership in a dynamic business society. Admission to candidacy for the degree is dependent upon the candidate's undergraduate record and test scores on the Graduate Management Admission Test. The GMAT examination must have been taken prior to enrollment in the program.

The length of the program will depend upon the candidate's undergraduate background and business experience. Both the thesis and the non-thesis options are available for the majors in Business. For either option the program is:

Required: 12:262; 13:263; 15:260; 15:263; 15:299; 92:139
Electives: Minimum of 12 hours for non-thesis. Minimum of 6 hours (plus thesis) for thesis.
Electives must be approved by the candidate's graduate committee and selected from the fields of business, economics, mathematics, anthropology, sociology, or psychology.
Candidates selecting the non-thesis option must write a major research paper for which no credit will be given. The candidate must make a formal oral defense of this paper before the graduate faculty of the Department of Business.

## Major in Business Education

Both the thesis and the non-thesis options are available for the major in Business Education. A professional core of seven or eight semester hours is required; it may consist of Core A, Core B, or the following courses: $17: 113 ; 17: 114 ; 17: 119$. When approved in advance by the departmental graduate committee, the core may be composed of other combinations of professional courses.

Required: 15:292 or 25:294; 17:203 and/or 17:207.
Graduate and undergraduate credit combined must include at least 50 semester hours in business, business education, and closely related subjects and must include credit in economics and in accounting.

Candidates selecting the non-thesis option must write a formal research paper approved by
the departmental graduate committee. This may be a paper written independently without credit or may be one presented to meet a requirement of a business education course numbered 200 or higher.

## Major in Chemistry

This major is available with teaching or non-teaching emphasis on either the thesis or nonthesis plan. The total number of graduate hours in chemistry required will depend upon the student's undergraduate preparation and his professional objectives.

All non-teaching programs must include at least three (3) hours of research, 86:299.
All programs must include 82:200 or an equivalent course.
Professional Core B is recommended for two-year college teaching preparation.
Individual programs will be worked out in consultation with the departmental adviser.

## Major in Communications Media

This major is offered by the Department of Curriculum and Instruction as a program in media production and message design for persons planning to work in non-school settings, and is available on both the thesis and the non-thesis options. A minimum of 30 hours is required for either option.

Majors in this area will complete a basic core of course work applicable to all preparing for work as media specialists or communications designers. Specific areas of interest will determine the supporting electives. A teacher's certificate is not required. The student's baccalaureate degree may be in any field.

Required: 24:131; 24:135; 24:137; 24:140; 24:205; 24:289.
Electives: 16 hours from Educational Media and other academic disciplines related to the individual learner's area of emphasis. Selection of the emphasis shall be made in consultation with the student's adviser.

## Major in Counseling

The program is designed for persons who plan to counsel in non-school settings such as churches, industry, student centers, employment services, domestic peace corps, job corps, and similar situations. Students who major in this area will complete a basic core of courses applicable to all preparing for work as counselors. Courses in psychology and measurement are provided as a background. Specific areas of interest and the professional field in which the person plans to work will determine the supporting course work and the appropriate electives. Since persons working on this major will be interested in counseling activities in settings other than that of education, there will be no necessity for the student to hold a teaching certificate. The student's baccalaureate degree may be in a liberal arts or a profession, including teaching, however.

Required: 29:203; 29:205; 29:220 or 29:124; 29:110 or 29:225; 29:227; 29:252;
29:290 (3 hrs.)

29:289 Agency Counseling-2 hrs.
29:289 Seminar: Preparation and Processing Grant Proposals-2 hrs.
Required: a minimum of five (5) hours from a selected list.
Worksheets giving complete details of this program are available in the office of the Department of School Administration and Personnel Services.

## Major in Earth Science

Each student who majors in Earth Science will complete Professional Core A or Professional Core B or a special core arranged by the student and his graduate committee.

Required: 87:292 or 25:294; 82:200.
Electives: As approved by the department; a minimum of 18 hours of graduate credit hours in earth science.
A maximum degree of flexibility is permitted so that each program of studies can be adjusted to the particular needs of the individual. The total number of graduate hours required for the major will depend upon the student's undergraduate preparation. A minimum of 30 graduate credit hours is required for this major.

A research paper in earth science is required of students on the non-thesis program. Credit may be earned for the paper by enrolling for 87:299. It is expected that the paper and research will involve field and laboratory study.

## Major in English

The major in English is available on both the thesis and the non-thesis options.
Required of all students: 62:201.
Thesis option: Minimum of 30 hours including 6 hours for the thesis.
Non-thesis option: Minimum of 30 hours-
Core A or Core B. Required: 62:193 or equivalent.
No Core: Program planned by student and adviser.
At least one semester before the degree is conferred, all candidates for degrees in English must demonstrate a basic competence in a foreign language. This requirement may be met in one of two ways: either by obtaining at least a C grade in the second semester of a language course at this university (or its equivalent at another accredited institution) or by passing a proficiency examination. This requirement does not apply to a student whose native language is other than English. Work taken to satisfy the foreign language requirement does not count toward the number of hours required for the completion of the degree.
(See p. 228 for the major in Teaching of English as a Foreign Language.)
(See p. 228 for the major in Teaching of English in the Community College.)

## Major in English Linguistics

This major is offered on both the thesis and non-thesis options for a total of at least 30 hours on either program from the following courses. Competency in a foreign language is required.

Linguistic Core: 63:141; 63:144.
Electives- Group I: 63:125; 63:254; 63:256; 63:285. Group II: 62:144; 62:166; 63:147; 62:184; 63:231; 63:286. Group III: 51:105; 50:230; 65:145; 80:169; 99:175; 63:299.
Thesis option requires the following:
Linguistic Core- 6 hours
Electives from Group I-9 hours
Electives from Group II and III combined-9 hours
Non-thesis option requires the following:
Linguistic Core- 6 hours
Electives from Group I-9 hours
Electives from Group II-12 hours
Electives from Group III-3 hours
The foreign language requirement can be met by a student who offers a grade of at least $\mathbf{C}$ in
the second semester of college-level French, Spanish, German, Latin, or Russian, or who can pass a reading comprehension examination in one of these languages. Work taken to satisfy the foreign language requirement does not count toward the number of hours required for the completion of the degree.

## Major in French

This program prescribes no required courses. Each student's program will be determined by his needs and in consultation with his adviser. A minimum of $30-32$ hours is required for both the thesis and the non-thesis options.

## Major in Geography

All students planning to enroll in this major must take diagnostic examinations before beginning graduate work. The core of these examinations will be subject matter from the following courses: 97:010 or 97:025, 97:031, 97:109, 97:183. These examinations are required in order to assist in recommending specific courses which the student should take. The student must also demonstrate facility with material covered by the course 97:101.

Required: 97:193; 97:203; 97:288.
Required: thesis, or a research paper as prescribed by the department.
Students must take a final examination, written and/or oral, at the discretion of the Geography faculty.

## Major in German

This major is available on both the thesis and the non-thesis programs. A minimum of $30-32$ hours is required for either option.

Required: 74:201 or equivalent; 74:203 or equivalent.
The remainder of the program will be determined by the student's needs in consultation with his advisor.

## Major in History

This major is available on either the thesis or non-thesis option with a minimum of semester hours required for each (thesis, 24 hours plus 6 hours credit for the thesis). A research paper is required on the non-thesis option. Prospective majors must consult with the department head about further requirements prior to beginning their programs.

Required: 96:290 or 96:292; 96:193.
Students must take a final comprehensive examination, both written and oral.
A reading proficiency in a foreign language is recommended. This is particularly essential for those persons intending to pursue graduate studies beyond the M.A. degree.

Students must take 3-6 semester hours outside the field of history.

## Major in Home Economics Education

A minimum of 30 semester hours is required for both the thesis and the non-thesis options for this major. The total hours for the thesis plan includes 6 hours credit for the thesis.

Required: 31:280; 31:281; 31:282; 31:283.
Electives as approved by the department.
It is recommended that students follow either Professional Core A or Core B.

## Major in Industrial Arts

The industrial arts major is available on both the thesis and non-thesis options. A minimum of 30 semester hours is required for the thesis option, and 32 semester hours for the non-thesis plan.

Required for Professional Core A ( $K$-14 teachers): 20:214 or 26:234; 33:214; 33:226; 33:228; 33:270 ( 6 hours) or thesis; 33:292.
Required for Professional Core B (post-high school teachers): 27:250; 27:252; 33:214; 33:226; 33:270 (3 hours) or thesis; 33:292; 33:297.
Required for Departmental Core (individually planned programming): 33:292; 33:270 (6 hours) or thesis; and program requirements based on student's needs and interests as cooperatively planned by student and adviser and approved by departmental Graduate Committee.
All students must complete a minimum of 40 semester hours in industrial arts counting both undergraduate and graduate courses. To be admitted as a candidate for the degree in this major, a student must have completed a minimum of 20 semester hours of undergraduate and/or graduate credit in industrial arts.

Candidates selecting the non-thesis option must write a formal research paper (usually initiated in 33:270) approved the departmental Graduate Committee.

## Major in Library Science

Applicants for the master's degree must hold or be eligible for the Iowa Professional Certificate or it's equivalent upon completion of the degree.

Required: 35:113; 35:131; 35:295.
Additional course requirements for either the thesis or non-thesis plan will be determined by the department. Requirements will be largely governed by certification needs.

Non-thesis plan requires a minimum of 32 semester hours.

## Major in Mathematics

This major requires as a prerequisite a bachelor's degree with a major in mathematics or the equivalent. It prescribes no specific graduate courses; upon successful completion of the Candidacy Examination, the courses for a student's program are chosen with the help of his Committee Chairman.

A minimum of 30 semester hours is required for both the thesis and the non-thesis options.
Students expecting to teach may choose one of the two core programs; however, no core is required in this program.

## Major in Mathematics for Elementary Schools

This major is specifically intended for teachers and supervisors. Candidates are expected to hold appropriate certification or to provide for it in the program.

It is suggested that all candidates take Core A. Those particularly interested in college teaching may use as part of their additional courses in education: 27:250; 27:252; 80:297.

Required (all programs): 80:185; 80:235; 80:280; 80:281.
Recommended electives in mathematics: 80:111; 80:112; 80:113; 80:134; 80:130 or 80:158; $80: 144 ; 80: 153 ; 80: 160 ; 80: 165 ; 80: 172 ; 80: 174 ; 80: 180$ or $80: 183 ; 80: 175 ; 80: 297$.
Recommended courses in other departments: 20:100; 24:132; 21:144; 23:110; 21:152; 27:212; 27:220; 27:221; 27:250; 27:252; 21:289; 21:290; 28:150 or 28:250; 37:013; 52:102; 82:200.
Other electives as agreed upon by the student and his Committee Chairman.
Programs will depend on the level of mathematical training presented at the time of admission to candidacy.

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## Major in Music

All prospective graduate students in music must have completed a satisfactory undergraduate degree with a major in music from an accredited institution or have an equivalent music education background.

Students who are found deficient in theory may be asked to take certain theory classes without graduate credit.

All students must take 52:221.
Required for students who take Professional Core A:
2 hours of 54:2xx Applied Music.
2 hours of 57:281 or 57:283 or 57:290 or 57:291.
Required for students who take Professional Core B:
Student must demonstrate artistic and/or scholarly performance in one of the following: applied music, music composition (theory), or writing; and, before a jury, demonstrate an acceptable proficiency at the piano.
Also required, work from each of the following:
Applied Music-2-8 hours
Music Methods-4-10 hours
Music Theory-8-12 hours
Music Literature-6-10 hours
Students on the thesis plan may complete a conventional type of thesis or may satisfy the thesis requirement by creative work or by a recital. A graduate student wishing to perform a recital in lieu of a conventional thesis will be classified for graduate credit in an applied area by jury audition. A 200 number will be assigned only to a graduate student who has passed satisfactory audition and is preparing for the graduate recital.

Other detailed information should be obtained in advance from the head of the Department of Music and the Dean of the Graduate College.

By including 27:227 or 27:228 and 27:220 or 27:221 in the student's graduate program and with the required four years of successful teaching experience, the student may become eligible for a certificate endorsement in music supervision.

## Major in Physical Education

This major is available only to students taking Professional Core A or B. A minimum of 30 hours is required on the thesis option, and a minimum of 32 hours on the non-thesis plan. The student must have at least 40 semester hours of physical education at the undergraduate and graduate level, exclusive of activity courses.

Required: 37:273
Electives as recommended by the departmental committee.
Candidacy and comprehensive examinations will be required of all students.
For certificate endorsement as a supervisor of physical education, the student must have four years of successful teaching experience and include in his program of study:

27:141 and 37:276
and at least 6 hours from: 24:132; 20:191; 25:234; 27:220; 27:227; 28:250.

## Major in Physics

Two emphases are available.
Physics Teaching. The program is for high school teachers. Professional Core A or a departmentally approved core is required. The total number of hours required (minimum of 30) will depend upon the student's undergraduate preparation. Both non-thesis and thesis options are available but non-thesis is recommended unless the student has a large number of undergraduate credits in physics.

Junior College Teaching. Professional Core B or a departmentally approved core is required. However, Professional Core B must be taken by students who do not hold (or are not eligible to hold) an Iowa Professional Certificate endorsed for Junior College Teaching, or it's equivalent. A larger number of physics courses (combined undergraduate and graduate) is required than for the other program. The thesis option is normally required. If the student has a strong undergraduate background in physics, the program can be completed with the minimum of 30 graduate hours including thesis.

Both programs require 82:200 unless a suitable undergraduate course is approved as a substitute.

88:120, 88:130, 88:131, 88:157, and 88:158 may not be used for credit on this major.

## Major in Political Science

This major is available on both the thesis and non-thesis options. For the thesis plan, a minimum of 24 semester hours plus 6 hours for the thesis is required. A student on the non-thesis plan must complete a minimum of 33 graduate hours.

Required: 94:292 and 94:275.
A student may, with departmental approval, take as much as 12 hours in other disciplines. Each student's program will be determined by his needs and in consultation with his adviser and graduate committee.

All students must take a final comprehensive examination, both written and oral.

## Major in School Business Management

This major is offered cooperatively by the Department of Business Education and Office Administration and the Department of School Administration and Personnel Services. Students completing the major in the Departmentof Business Education and Office Administration are awarded the Master of Arts degree; students completing the major in the Department of School Administration and Personnel Services are awarded the Master of Arts in Education degree. For the Master of Arts degree the program is as follows:

Required: 27:102; 27:240; 27:289 or 15:282; 27:230.
Electives as approved by chairman or co-chairman.
The student's chairman will be appointed by the Department of Business Education and Office Administration and a co-chairman by the Department of School Administration and Personnel Services. Candidacy and comprehensive examinations will be under the joint jurisdiction of the two departments.

## Major in Science

A minimum of 32 hours is required for this major. The student's total number of graduate hours will depend upon his undergraduate preparation. This major requires either a thesis or a research paper.

A student must complete 82:200 or an acceptable substitute.
Detailed information on this major, including directions for procedures to follow in planning an individualized program and in requesting assignment of an adviser, may be obtained from the Dean of the College of Natural Sciences, UNI, or the Dean of the Graduate College.

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## Major in Science Education

Major offered on both the thesis and non-thesis options. Program requires a minimum of 32 semester hours.

Required: $82: 280 ; 82: 200$ (or acceptable substitute); $28: 250$ or $8 x: 297 ; 25: 294$ or $84: 292$ or 86:292 or 87:292 or 88:292.
Required: At east 12 hours in one and no less than 6* hours in a second of the following disciplines: biology, chemistry, earth science, and physics (*or in closely related courses in disciplines different from the 12 -hour emphasis).
Required: Minimum or 6 hours as optioned-
Thesis option-thesis in science education or a laboratory science;
Non-thesis option-electives as approved by the Science Education Coordinating Committee.

Candidate must:

1) hold an Iowa Professional Certificate or it's equivalent;
2) have undergraduate preparation in science and mathematics equivalent to UNI B.A. in science major-teaching degree;
3) complete three years of teaching experience before degree is conferred;
4) pass a comprehensive examination in (a) science education and (b) the science areas of emphasis (unless a thesis is written, in which case one examination of the twocandidate's choice-will be written).
Additional information on this major may be obtained from the Dean of the College of Natural Sciences, UNI, or the Dean of the Graduate College.

## Major in Social Science

This major is available only to students taking Professional Core A or B. A student must select two areas of study, one which should be his emphasis, from the following departments:

## Ecomonics

Geography
History
Political Science
Sociology and Anthropology
Additional information on this major may be obtained from the Dean of the College of Business and Behavioral Sciences or the Dean of the Graduate College.

## Major in Sociology

The major in sociology is available only on the thesis option.
Required: 98:280 Sociological Theory-3 hrs.
98:280 Sociological Research-3 hrs.
At least 12 hours of elective in sociology.
Candidates for the degree may take six hours outside sociology. These electives must be approved by the Department of Sociology.

A reading knowledge of a foreign language is recommended.
Comprehensive examinations, written and/or oral, at the discretion of the department.
Students entering graduate study in this department should have taken the following courses or should be able to demonstrate competency in them: 98:058, 98:060, 98:080, 98:085, and 98:170.

## Major in Spanish

The major in Spanish is available on both the thesis and non-thesis options. A minimum of $30-32$ hours is required for either option.

Required: 78:117 or 78:144 or equivalent; 78:123 or 78:140 or equivalent; 78:203 or 78:205; and 78:231.
The remainder of the program will be determined by the student's needs in consultation with his adviser.

## Major in Speech

A total of 30 semester hours is required for this major on both the thesis and non-thesis options.

Required: 50:225.
Students taking Professional Core A or B must also take: 50:230 and 50:283.

## Major in Speech Pathology

This major is available on two plans (A and B), both of which have the following requirements in common. These requirements include both graduate and undergraduate courses considered essential to certification and the master's degree. Starred (*) courses will normally have been completed at the undergraduate level and must precede additional work in speech pathology.

Required in speech pathology: *51:010; *51:105; *51:106; *51:111; *51:125; *51:135; *51:150; *51:155; *51:156; *51:165; *51:195; *51:196; 51:130; 51:140; 51:240; 51:241; 51:255; 51:275; 51:295; 51:289 (Differential Diagnostics).
Required in physics: *88:008.
Required in psychology or educational psychology: 15 hours including 40:008; 20:100; 20:112; *25:180.
Electives to be chosen in consultation with the student's adviser.
In addition to the above courses, the student must complete 150 clock hours of supervised clinical practice. Neither Professional Core A nor Core B are required on this major.

Plan A. A minimum five-year program based on an undergraduate teaching major. The nonthesis option will require 30 to 36 semester hours, depending upon the previous preparation of the individual student.

The professional program in speech pathology is a program of both undergraduate and graduate courses leading to a Master of Arts degree. Recommendation for certification in speech pathology is made only upon completion of the combined undergraduate-graduate program. This program is designed primarily to prepare students for careers as clinicians providing remedial services to the speech and hearing handicapped, with emphasis on children in public schools.

A student on this program must complete all the requirements for the B.A. degree, Speech Pathology Major-Teaching, and must meet all the requirements for admission to graduate work at UNI, and complete all other requirements for the master's degree.

The completion of the undergraduate major or its equivalent will be considered adequate undergraduate preparation for the graduate portion of the program. Deficiencies in undergraduate preparation must be made up before the student can begin his graduate sequence in speech pathology.

Plan B. This program is for students who do not desire formal teaching certification but who will be eligible for the Iowa Statement of Professional Recognition in speech pathology. If the student has no previous school experience and no teaching certification, the student will take

51:195 and 28:250. If the student's undergraduate major was other than speech pathology, he will complete the same work as the other students plus any deficiencies in background work.

Note: The maximum academic load, per semester, for any regular graduate student in speech pathology is 12 semester hours of course registration. In addition, as an integral part of the training program, students are assigned part-time professional activities of a clinical and/or research nature. These activities are commensurate with each student's abilities and professional goals. Time required for such activities is approximately 10 hours per week. No registration is required for these part-time professional activities and no academic credit is given; however, clock hours spent in direct, supervised, clinical work will be counted toward ASHA certification. This requirement applies to all graduate students in speech pathology who are enrolled for more than six semester hours. Part-time professional activities are in no way connected with or related to the awarding of an assistantship or fellowship.

## Major in Teaching English in the Community College

This major is ordinarily taken only on the non-thesis option. To be accepted for this major the student must have a baccalaureate major in English which included the following: film course ( 3 hours); advanced composition ( 3 hours); ethnic literature ( 3 hours); structure of English ( 3 hours); British literature to World War I (6 hours); American literature to World War I ( 6 hours); and contemporary literature ( 6 hours). Any deficiencies must be taken as additional work beyond the requirements of the master's program. All certification in Iowa requires a course in either American history or American government.

Required: 63:147; 63:144 or 63:194
Required: 62:193; 62:195; 62:201; 62:292; 62:297; 23:130; 27:252; 20:189 (2 hours)*
Required: a 3-hour course in journalism, television, or radio
Electives: Six (6) hours in 200 -level literature courses
(*20:189g to be repeated once for a total of two hours credit.)
If the student has completed any of the above courses at the undergraduate level, he or she may substitute additional electives to complete the total program hours.

A comprehensive examination is required of all students taking this major.

## Major in Teaching of English as a Foreign Language

All students who have not had the following courses, or the equivalent, must include these courses as a part of their graduate major: $62: 162 ; 63: 141 ; 63: 144 ; 63: 147 ; 63: 194$. Students selecting the non-thesis option are strongly recommended to take six hours of education and/or psychology, chosen to meet their individual needs.

Required: 63:235; 63:297.
At least one semester before the degree is conferred, all candidates for degrees in English must demonstrate a basic competence in a foreign language. This requirement may be met in one of two ways; either by obtaining at least a C grade in the second semester of a language course at this university (or its equivalent at another accredited institution) or by passing a proficiency examination. This requirement does not apply to a student whose language is other than English. Work taken to satisfy the foreign language requirement does not count toward the number of hours required for the completion of the degree.

## Major in Technology

This major requires a minimum of 33 semester hours and is available on both the thesis and non-thesis options in three specific emphases.

The candidate must:

1) possess a baccalaureate degree in technology, industrial arts, mathematics, physics, engineering, or some related field;
2) have earned a minimum of 8 semester hours of college mathematics and 8 semester hours of college physics and/or chemistry or other science related to the major area (this may be either graduate or undergraduate credit);
3) have earned a minimum of 15 semester hours in a major technical field and 8 semester hours in supporting technical subjects;
4) have or acquire one year of recent and significant trade or technical experience in industry in his particular field of emphasis.
The successful completion of a written Departmental (Department of Industrial Technology) Candidacy Examination is required in all three emphases, and students on non-thesis programs must successfully complete a written final comprehensive examination. In addition to the above, the emphases in Vocational-Technical Teaching and in Vocational-Technical Education Supervision and Administration must have credit in the following courses (or their equivalent): 33:101; 33:181; 33:188; and 33:191. These courses do not apply for credit on the major.

## Emphasis in Vocational-Technical Teaching

Required: 27:250; 27:252; 33:184; 33:194; 33:292; 33:273; 80:170; 33:297.
Electives as approved by the department from a selected list.

## Emphasis in Vocational-Technical Education Supervision and Administration

Required: 20:214; 27:252; 33:292; 80:170; 15:160; 15:101 or 15:105; 33:273; 15:260; 33:226.
Electives as approved by the department from a selected list.

## Emphasis in Industrial Supervision and Management

Required: 15:105; 15:167 or 80:170; 15:210; 15:260; 33:273; 33:299.
Required: 92:139 or 92:141 or 92:224.
Electives as approved by the department from a selected list.

## Major in TEFL and Foreign Languages

This major is offered cooperatively by the Department of English Language and Literature and the Department of Foreign Languages, and is under the joint jurisdiction and supervision of the heads of these two departments.

The major is normally available on only the non-thesis basis. A minimum of 30 semester hours is required. If a student has not completed 7x:101 and either 62:162 or 63:125 (or the equivalent) before entering the master's degree program, he must add these courses to the required stated below. There is no separate foreign language requirement.

Required: 63:141; 63:194; 63:235; 63:256 or 63:289; 63:297.
Required: one of the following language emphases for total minimum emphasis of 15 hours.
French: 72:125; 72:180; 72:201; 72:203; 72:281 (or equivalent seminar on a linguistics topic); 70:190.
German: 74:123; 74:180; 74:201 (or equivalent); 74:203; 70:190.
Spanish: 78:180; 70:203; 78:220; 78:123 or 78:140; 78:282 or 78:205; 70:190.

## Master of Business Administration Degree

Graduate study in business at UNI provides a broad, integrated program with emphasis in the functional areas of business and on selected, specialized techniques in order to provide a graduate with a balance between theoretical knowledge and practical business operations. The M.B.A. curriculum is designed to meet the needs of students with undergraduate backgrounds in the liberal arts, techinical sciences, or engineering, as well as those with degrees in business.

The plan of study prescribed for the degree is structured to develop graduates who will have acquired (1) an understanding of the theoretical and practical aspects of the process of policy formulation and implementation, (2) a comprehension of environmental factors-economic, legal, social, and political-which affect the individual in the performance of managerial responsibilitiles, (3) an understanding of analytical techniques and the use of quantitative data in the administration of business controls, (4) the ability to communicate ideas effectively in oral and written form, and (5) a basic knowledge of selected functional areas within the field of business administration.

Admission to candidacy for the Master of Business Administration degree is dependent upon the quality of the applicant's undergraduate record and a test score on the Graduate Management Admission Test. The GMAT must be taken prior to enrollment in the program.

## Major in Business Administration

This major is a non-teaching program designed to qualify men and women for creative leadership in business. Students who enter the program with the undergraduate requirements of a baccalaureate degree in one of the areas of business will normally require 30 semester hours to complete the program; those who enter the program with a baccalaureate degree in an area other than business may be required to complete a proportionately greater number of hours. Candidates selecting the non-thesis option will be required to pass a comprehensive examination in the last semester of the program.

Required: 12:262; 13:263; 15:262; 15:263; 15:266; 15:267; 92:210;
15:289 Seminar: Business Policy- 3 hrs.
Electives: a minimum of $\mathbf{6}$ hours or completion of a thesis.
Detailed information for the M.B.A. may be obtained from the Head of the School of Business, UNI.


Outline of Organization and Requirements for Master's Degrees. University of Northern Iowa

|  | Master of Arts in Education | Master of Arts |
| :---: | :---: | :---: |
| A. Purpose and Objectives | 1. Preparation of school service personnel <br> a. administrators <br> b. supervisors <br> c. counselors <br> d. school psychologists <br> 2. Advanced preparation of elementary and secondary teachers <br> 3. Preparation of community college teachers | 1. Graduate study in field of specialization <br> 2. Advanced preparation of elementary and secondary teachers <br> 3. Preparation for college teaching |
| B. Program Options | 1. Thesis plan <br> 2. Non-thesis plan | 1. Thesis plan (open to all) <br> 2. Non-thesis plan (except for majors in Geography and Sociology) |
| C. Eligibility for Candidacy | 1. Unconditional admission to graduate study <br> 2. General graduate examinations and dept. candidacy examinations passed <br> 3. Hold or be eligible for Iowa Professional Certificate or equivalent* | 1. Unconditional admission to graduate study <br> 2. General graduate examination(s) and dept. candidacy examinations passed |
| D. Program Requirements | 1. On the non-thesis plan: at least one research paper approved by the department and filed in the departmental office <br> 2. On all majors: <br> 25:294 Educational Research-3 hrs. <br> 20:214 Advanced Educational Psychology-2 hrs. <br> or | 1. On the non-thesis plan: at least one research paper approved by the department and filed in the departmental office <br> 2. On certain majors: work outside the major, or competence in a foreign language, or Prof. Core A or B (see major for specific requirements) |

26:234 Philosophy of Education
3. On some majors:

Teaching experience as specified
*Except for majors in College Student Personnel Services, General Educational Psychology, and School Business Management.
**Students completing Professional Core B with appropriate courses in one or more subject areas may be recommended for Iowa Public Junior (Community) College certification.

## Core A

(1) 20:214 or 26:234-2 hrs.
(2) 25:294- 3 hrs., or departmental research course
(3) Methods course in major field, or 200-level course in Education or Teaching

## Core $B^{* *}$

(1) 27:250 Teaching in College- 3 hrs .
(2) 27:252 Current Issues in Higher Educ.-2 hrs.
(3) 297 Practicum-2 hrs.

## Specialist in Education Degree

The Specialist in Education degree is designed to serve a qualitative need for highly trained specialists in various fields of educational endeavor. Many salary schedules have recognized advanced preparation beyond the master's degree, but such recognition is often based on a collection of hours not necessarily representing a planned program of study. The Specialist in Education degree requires careful planning with the resultant advantages. It is a program designed to meet the needs of students in professional areas in which the master's degree is not sufficient, but in which the rigorous research emphasis of the doctorate is not necessary. The sixth year of preparation is being recognized in certification standards of several states and as a membership requirement in the American Association of School Administrators.

The program at the University of Northern Iowa leading to the Specialist in Education degree involves breadth of preparation as well as depth in a particular field of specialization. Persons majoring in a professional area of specialization will take work in cognate fields to help develop this broadened base of understanding, such work to be determined in cooperation with the student's adviser. At the same time the program is flexible enough to permit variation in accord with individual backgrounds and aspirations. The flexibility is such that persons with the master's degree in either professional education or in an academic area may participate in the program.

Majors are available in the following areas:
Curriculum and Supervision
Curriculum Coordinator
Elementary Consultant
Secondary Consultant
Educational Psychology
Evaluation
School Psychology
Reading
Reading Clinician
School Administration
Superintendent
Elementary Principal
Secondary Principal
School Business Management
School Business Management
Special Education
Special Education:
Administration Emphasis
Curriculum Consultant Emphasis
Student Personnel Services
Director of Guidance Services
Elementary Guidance and Counseling
Secondary Guidance and Counseling
College Student Personnel Services
Business Education
Major in Business Education
Industrial Arts
Major in Industrial Arts

Detailed information for each of the above program areas may be obtained from the head of the department offering the major. These include:

Department of Curriculum and Instruction<br>Reading<br>Special Education<br>Department of Educational Psychology and Foundations<br>Educational Psychology<br>Department of School Administration and Personnel Services<br>Curriculum and Supervision<br>School Administration<br>School Business Management<br>Student Personnel Services<br>Department of Business Education and Office Administration Business Education<br>Department of Industrial Technology Industrial Arts

The programs leading to this degree are open to students who hold a master's degree from an accredited graduate school, who have had at least one year of teaching experience, and who meet the requirements set forth below.

With special approval, the student may work directly toward the Specialist in Education degree without going through a master's degree program.

## Admission to Candidacy

A student must successfully complete the following examinations: (a) Miller Analogies test, (b) Professional Education Examination, and (c) Departmental Examinations; however, the major in College Student Personnel Services involves only parts (a) and (c).

A student's application, including program, must be approved by the departmental committee, the head of his department, the dean of the appropriate college and the Dean of the Graduate College. Normally he may be admitted to candidacy during or immediately following the first semester of enrollment following the receipt of the master's degree, but capable students may be admitted to candidacy for the Specialist in Education degree at any time after being admitted to candidacy for the master's degree.

## Graduation Requirements

The student shall complete the general requirements for the Specialist in Education degree and shall meet the requirements as specified by the departmental committee using a combination of graduate courses taken for the master's degree and beyond. The student must be eligible for certification as a teacher, if required for the major, before the degree will be granted. In some cases, appropriate certification endorsement will be recommended for those who meet the standards set by the university in conjunction with the appropriate certification agency. Receipt of the degree is not a necessary prerequisite to recommendation for the appropriate endorsement(s) unless state standards require such. Students seeking only specific endorsement will not be required to secure admission to candidacy, complete the thesis requirement, or take comprehensive examinations. A cumulative graduate grade point average of 3.00 or better will be required prior to recommendation for endorsement(s).

Hours of Credit. A student must earn a minimum of 30 semester hours of graduate credit beyond the master's degree. Credit earned in excess of that required for the master's degree may
be applied toward the 30 -hour requirement if that credit is earned during the final period of enrollment for the master's degree.

Certain limitations on the amount and kinds of credit must be observed:
200 -level Credit. A student must earn at least 24 semester hours of credit in courses numbered 200 or above, counting both the master's and the post-master's work but not counting any Research credit.

1. Research Credit. The provisions regarding research credit are the same as those for the master's degree and in addition to the amount of such credit used toward the master's degree. (See p. 209). Not more than six (6) hours of research credit can be included in the 30 (or more) hours of post-master's credit.
2. Recency of Credit. Courses taken more than 7 years prior to the granting of the degree cannot be used to meet degree requirements.
3. Transfer Credit. In addition to the transfer credit permitted on the master's degree, 8 semester hours of transfer credit for post-master's work may be applied toward the degree of Specialist in Education.
4. The regulations regarding credit in correspondence courses, and radio and television classes are the same as those for the master's degree. (See p. 208).
Scholarship. A cumulative grade index of 3.00 (B average) must be earned at the University of Northern Iowa in all courses attempted after receiving the master's degree. No credit toward graduation is allowed for a course in which a grade below $\mathbf{C}$ is earned.

Candidacy. The requirements for admission to candidacy are described on p. 233.
On-Campus Residence. A student must have compelted at least 18 hours in residence credit on campus, including one semester or two summer sessions of fulltime enrollment in residence after the master's degree.

## Examinations.

(a) A student must pass a comprehensive oral examination, including a defense of the thesis, if any. The examination will be conducted and evaluated by the departmental committee and a faculty member designated by the Dean of the Graduate College, although other members of the faculty may participate.
(b) A student may be required by the departmental committee to pass a written comprehensive examination. If required, it should precede the oral examination.
Thesis. A student who did not complete a thesis for the master's degree must complete one for the specialist's degree. A department may require a student who has written a master's thesis to write a thesis for the specialist's degree also. The thesis must be presented in the style and form prescribed for the master's thesis. It must have the approval of the thesis committee and the Dean of the Graduate College.

The work on a thesis will normally be considered to involve about 6 semester hours of credit. To earn this credit, a student registers for Research and usually not in one block. The instructor will assign a grade for a semester's registration in Research based upon the progress made, but may assign an Unfinished ( $U$ ) if he feels the work has not reached the place where it can be evaluated. Registration for the last segment of Research credit (for work on a thesis) should not be made until the thesis is near completion. The Dean of the Graduate College may authorize an extension of time for the completion of an Unfinished in Research up to one additional calendar year; but if at the end of that time the work has not been completed, the grade of $U$ will be changed to an $F$ (Failure). Completion of the thesis project occurs when the thesis has been approved by the thesis committee and the Dean of the Graduate College.

The Dean of the Graduate College will appoint three members of the Graduate Faculty as an advisory committee to guide the student in selecting and completing an appropriate thesis project.

Filing of Thesis and Abstract of Thesis. The same regulations apply as for the master's degree. See p. 210.

Application for Graduation. The same regulations apply as for the master's degree. See p. 210 .

Attendance at Commencement. The same regulations apply for the master's degree. See p. 210.

## REQUIREMENTS FOR VARIOUS MAJORS

Course work requirements for the Specialist in Education degree are defined in terms of a two-year graduate program, including work taken on the master's degree. A minimum of 60 semester hours is required for completing the program.

Worksheets giving complete details of the various majors and emphases are available in the offices of the departments in which the majors are offered.

## CURRICULUM AND SUPERVISION

The programs in curriculum and supervison provide preparation to serve as curriculum director or consultant in city and county systems or college instructor. Competency is required through examination or the following courses: 25:181; 25:180.

General requirements: 20:214; 24:131; 24:132; 26:234; 25:294; 27:141; 27:204 or 27:210; . . .:290; plus 8 semester hours of non-professional course work.

## Major in Curriculum Coordinator

Must hold a certificate for elementary or secondary teaching prior to completing the program.
Required: 27:212; 27:220; 27:226; 27:227.

## Major in Elementary Consultant

Must hold a certificate for elementary teaching prior to completing the program.
Required: 27:226; 27:227.

## Major in Secondary Consultant

Must hold a certificate for secondary teaching prior to completeing the program.
Required: 27:226; 27:277.

## EDUCATIONAL PSYCHOLOGY

The major in school psychology prepares a student for work in educational psychology at the public school and college levels. The major in evaluation provides preparation in the area of research and measurement in schoold and in higher education.

Competency is required through examination or the following courses: 40:008; $20: 100$ or 20:116; 25:181; 25:180.

General requirements: 20:139; 25:281; 25:282; 25:283; 25:294; 29:203.
8 semester hours of non-professional course work.

## Major in Evaluation

Required: 20:214; 26:234; 29:102; 27:220 or 27:227; 25:280; 80:172;
25:289 Evaluation-2 hrs.
25:289 Research Problems-2 hrs.

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## Major in School Psychology

Required: 20:214 or 26:234; 20:118; 20:142 or 20:230; 40:118; 29:104; 22:150;
51:101; 20:194; 29:205;
. .:289-2 hrs.
An approved course in reading.
6 semester hours selected from a list of restricted electives.
Supervised internship under the direction of a certified school psychologist.

## READING

## Major in Reading Clinician

To be eligible for a degree in this major the student must be certified as an elementary or secondary teacher. This program and two years of teaching experience satisfy requirements for certification as Reading Clinician.

Competency is required through examination or the following courses: 20:100; 20:116; $21: 044$ or $21: 144 ; 23: 110 ; 23: 130 ; 23: 147 ; 23: 148 ; 25: 180 ; 25: 181 ; 62: 165$.

Required: 20:214 or $26: 234 ; 23: 212 ; 23: 114 ; 23: 210 ; 23: 240 ; 23: 244 ; 25: 294 ; 23: 242$;
. .:289-2 hrs.
. .:290-2-4 hrs.
8 semester hours required in non-professional course work.
Work in speech pathology and sociology recommended.

## SCHOOL ADMINISTRATION

The sixth-year program in administration prepares qualified people to serve as superintendent, assistant superindentent, business manager, or principal, or to teach in related areas at the college level.

The student must hold a certificate to teach in the elementary or secondary school and must have successfully completed one year of teaching at the elementary or secondary level prior to completing his degree. (Check certification requirements.)

General requirements: 25:294; 20:214 or 26:234; 25:180; 27:102; 27:240; 27:241; 27:210; 27:141; 25:181; 2x:289; 2x:290; 27:230. One course in educational psychology, or guidance. 8 semester hours of non-professional course work.

## Major in Superindentent

Required: 27:220; 27:221; 27:227; 27:228.

## Major in Elementary Principal

Required: 27:212; 27:220; 27:221.

## Major in Secondary Principal

Required: 27:226; 27:227; 27:228.

## SCHOOL BUSINESS MANAGEMENT

## Major in School Business Management

This major is offered cooperatively by the Department of School Administration and Personnel Services and the Department of Business Education and Office Administration. The program is as follows:

Required: 25:294; 20:214 or 26:234; 27:102; 27:240; 27:241; 27:210; $15: 163 ; 15: 210$;
15:270; 27:289 or 15:282; 27:230.
Electives as approved by chairman or co-chairman.

The student's chairman and co-chairman will be appointed according to the department in which the student files his major. Candidacy and comprehensive examinations will be under the joint jurisdiction of the two departments.

## SPECIAL EDUCATION

## Major in Special Education

## Administration Emphasis:

To be eligible for this degree, the student must be certified as a teacher of the handicapped or as a school psychologist or speech and hearing clinician.

Required: 25:294; 20:214 or 26:234; 27:280; 22:184; 22:252; 22:278; 22:289; 22:290; 27:102 or $27: 228$ or $27: 221 ; 27: 210$ or 27:204 or 27:141 or 27:212 or 27:226. plus
Two courses in mental retardation, emotionally disturbed or speech correction, and
8 semester hours chosen from ṇon-professional course work.

## Curriculum Consultant Emphasis:

To be eligible for this degree, the student must be certified as a teacher of the handicapped and must have completed at least one year of successful teaching experience. The program prepares the qualified person to serve as a curriculum consultant for special education in local, intermediate, or state school systems.

Competency is required through proficiency examination or coursework in the following courses: 22:170; 22:171; 22:184; 22:252; 22:278; 22:289; 22:290; and 22:180, 22:183, 22:182, or 22:181.

Required: (Professional Core): 25:294; 26:234 or 20:214
Required: three courses from the following: 27:102; 27:141; 27:204; 27:212; 27:220;
27:226; 27:227; 27:230.
Required: $\mathbf{8}$ semester hours chosen from non-professional coursework.

## STUDENT PERSONNEL SERVICES

The appropriate program in student personnel services may lead to counseling work in the elementary or secondary school, colleges or universities.

The majors in the area of Student Personnel Services, with the exception of the major in College Student Personnel Services, must comply with the following: In consultation with his adviser, the student will complete a minimum of twelve (12) semester hours in psychological and/or sociological foundations form courses with the following departmental prefixes: 20, 22, 25, 26, 27, 31, 40, or 98, which must include a course in Psychology of Personality and a course in Abnormal Psychology.

## Major in Director of Guidance Services

Must be certified as a teacher and must have successfully completed one year of teaching at the elementary or secondary level. (Check certification requirements.)

Required evaluation and research: 20:270; 25:180; 25:181; 25:294
Required: 29:102; 29:104; 29:110; 29:126; 29:220 or 29:124; 29:203; 29:205; 29:210; 29:207; 29:225; 29:227; 29:234; 29:290 Elementary Counseling Practicum-3 hrs. 29:290 Secondary Counseling Practicum-3 hrs. 29:290 Group Counseling Practicum-3 hrs.
Required: Thesis ( 6 hrs.)

## Major in Elementary Guidance and Counseling

Must hold certificate to teach in the elementary school and have successfully completed one year of elementary school teaching before completing the program. (Check certification requirements.)

Required evaluation and research: 25:181; 25:180; 20:270; 25:294.
Required: 29:104; 29:124; 29:126; 29:207; 29:210; 29:220; 29:225; 29:227; 27:220 29:289 Contemporary Problems in Personnel Services-2 hrs. 29:290 Elementary School Guidance-6 hrs. 29:290 Field Experience- 3 hrs.
Required: Thesis ( 6 hrs .)

## Major in Secondary Guidance and Counseling

Must hold certification to teach in the secondary school and have successfully completed one year of secondary school teaching before completing the program. (Check certification requirements.)

Required evaluation and research: 25:180; 25:181; 25:294.
Required: 29:102; 29:110; 29:124; 29:126; 29:205; 29:210; 29:220; 29:225; 29:227; 27:227; 29:289 Contemporary Problems in Personnel Services-2 hrs. 29:290 Secondary Counseling - 6 hrs. 29:290 Field Experience in Secondary Counseling-3 hrs.
Required: Thesis ( 6 hrs.)

## Major in College Student Personnel Services

Competency is required through examination or the following courses: 25:181; 25:180.
General requirements: 20:214; 26:234; 25:294.
Required: 27:252; 29:230.
29:289 College Student Personnel Programs (may be repeated once)
29:290 Practicum in Education and Psychology: (three areas required) College Counseling Services-2 hrs. College Student Housing-2 hrs. College Student Personnel Administration-2 hrs. College Student Activities-2 hrs.
8 semester hours chosen from a list of restricted electives.
Required non-professional: 8 semester hours including academic psychology.

## BUSINESS EDUCATION

## Major in Business Education

The number of hours in Business and Business Education Courses, counting both graduate and undergraduate hours, must total at least 60 and must include basic background in Economics. At least 15 hours of Business and Business Education credit must be taken during the student's sixth-year program.

Required: 20:214; 26:234; $15: 292$ or $25: 294 ; 25: 181 ; 15: 167$; $15: 297$; 17:203; 17:207; 17:280; 17:284.
and 8 semester hours in cognate fields (cognate fields could include fields such as ecomonics, education and psychology, and mathematics).
Students interested in serving as a master teacher in one of the Business Education areas must have a minimum of 20 semester hours of graduate credit in subject matter courses chosen
from the following areas with no less than 6 hours of graduate credit in each of two areas: Accounting, General Business, Marketing, Secretarial. At least 9 hours of this requirement must be taken during the student's sixth-year program.

Student's seeking to be college teachers, supervisors, or to hold certain administrative posts in the field of business or vocational education will need to select courses particularly suited to the desired goal. Such courses should be made a part of the candidacy program.

## INDUSTRIAL ARTS

Major in Industrial Arts
The Specialist in Education degree program with a major in Industrial Arts offers qualified persons an opportunity to prepare for such leadership positions as master teacher in public or private secondary school, supervisor of student teaching, college teacher, technical institute teacher, supervisor, or director of industrial arts. The student should have established an aim so that his sixth-year program can be designed to help attain his goal.

Required: 33:214; 33:226; 33:228; 33:292 and
15 hours in one of the following: drafting, electricity-electronics, graphic arts, metal, power mechanics, or wood. The number of hours in Industrial Arts courses, counting both graduate and undergraduate hours, must total at least 60 .
Required: 25:180; 25:294; 20:214 or 26:234 and 8 hours of work in cognate fields, including: 25:281 or 80:153; 92:116.

## Specialist Degree

The requirements concerning candidacy, graduation, scholarship, residence, examinations, and thesis are the same as for the Specialist in Education degree. (See pp. 233-235.)

## Major in Science Education

For admission to candidacy, the student's program must be approved by the Science Education Coordinating Committee and the Coordinator of Science Education. In addition to examinations required for the specialist's degree, this major requires examinations administered by the Science Education Coordinating Committee.

Each candidate's program will include an emphasis in a particular science disicipline that is at least equivalent to an acceptable major on the M.A. program with Professsional Core A. In addition, the emphasis must include any courses needed to match the specific UNI requirements for an undergraduate teaching major in that discipline, plus mathematics through the equivalent of 80:060. (Not all courses taken to meet this requirement will necessarily be eligible for graduate credit.)

Research experience (not necessarily as credit in "Research") in both laboratory science and science education must be part of the total post-B.A. program. Not more than six (6) hours of research credit may be included in the 30 (or more) hours of post-master's credit.
(Worksheets giving complete details of the major and emphases are available in the office of the Dean of the College of Natural Sciences.)

Required Science-minimum of 30 hours, including 82:200, selected from biology, chemistry, earth science, and physics. Must include at least 12 hours in science outside the area of emphasis, preferably in two different disciplines.

Required Research, Thesis and related courses-12-19 hours
25:294
8x:299
Thesis (if optioned or required)
3 of the following: 25:180 or 80:172; 80:170; 82:288 (1-2 hours); 25:281
Required Internship-4-6 hours
28:250 (2-4 hours); 82:280
Required Education-6-8 hours
20:214 or 26:234
and 2 of the following: 25:280; 27:227; 21:142; 27:220
Additional hours required ( $0-8$ hours) may be selected from:
a. any course listed above but not required
b. any 100 g or $200-\mathrm{level}$ mathematics course
c. any course numbered $82: 1 \mathrm{xxg}$ or $82: 2 \mathrm{xx}$
d. 82:280 (taken as a Professional Core A requirement in a master's program)
e. 27:226; 20:191; 24:137

## Cooperative Doctoral Program in Educational Administration

An agreement has been worked out between the University of Northern lowa and the University of Iowa to provide for transfer of graduate credit earned at the University of Northern Iowa at the sixth-year level to apply on the Doctoral Program in Educational Administration at the University of Iowa (U of I). A student may transfer any time during the sixth year. If a student completes the Specialist in Education program at UNI, it would be possible for an eligible candidate to complete the requirements for the Doctor of Philosophy degree at the U of I in three semesters (two semesters must be consecutive) of full-time residence work. The Office of the Dean of the Graduate College will provide further details upon request.

# State Board of Regents 

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Members of the Board:

Terms expire June 1977

Terms expire June 1979

Terms expire June 1981

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Harlan
R. Wayne Richey, Executive Secretary

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S. J. Brownlee, Emmetsburg

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# Administrative Staff 

## 1975-1976

## Officers of Administration

John J. Kamerick-B.A., St. Ambrose College; M.A., Ph.D., University of Iowa President of the University<br>Professor of History-1970**<br>James G. Martin-B.A., M.A., Indiana State College; Ph.D., Indiana University Vice-President and Provost Professor of Sociology-1971<br>Thomas W. Hansmeier-B.A., M.A., University of Northern Iowa; Ed. D. Michigan State University Vice-President for Student Services and Special Assistant to the President Professor of Education-1971<br>Robert D. Stanbury-B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa<br>Vice-President for Administrative Services<br>Associate Professor of Education-1968 (1973)<br>Edward V. Voldseth-B.A., University of Montana; M.A., Teachers College, Columbia University; Ph.D., University of lowa<br>Vice-President for University Relations and Development-1964 (1971)

## DIVISION OF INSTRUCTION

James G. Martin-B.A., M.A., Indiana State College; Ph.D., Indiana University Vice-President and Provost Professor of Sociology-1971
Fred W. Lotr.-B.S., Cedarville College, Ohio; M.A., Ph.D., University of Michigan Assistant Vice-President, Academic Affairs Professor of Mathematics-1949 (1971)
Gordon J. Rhum-B.A., Iowa Wesleyan College; M.A., Ph.D., University of Iowa Dean of the Graduate College Professor of Education-1948 (1970)
Donald O. Rod-B.A., Luther College; B.A.L.S., University of Michigan Director of Library Services
Professor of Library Science-1953 (1966)
Norris G. Hart-B.A., Huston-Tillotson College; M.A., Syracuse University
Director of Educational Opportunity Programs and Special Community Services-1971
(1972)

Raymond J. Schlicher-B.A., Iowa Wesleyan College; M.A., Ph. D., University of Iowa Dean, Division of Extension and Continuing Education-1949 (1975)
Robert R. Hardman-B.S. Ed., Maryland State Teachers College; M.S. Ed., Ed.D., Indiana University Director of the Educational Media Center
Professor of Educational Media-1970 (1974)
Robley C. Wilson-B.A., Bowdoin College; M.F.A. University of Iowa
Editor, North American Revien
Professor of English-1963 (1975)
Edward W. Amend-B.A., Midland Lutheran College; M.Div.. S.T.M., Lutheran School of Theology; Ph. D., University of Chicago
Director of Individual Studies
Associate Professor of Religion and Humanities-1967 (1972)
Francis Downs-B.A., Jersey City State College; M.A., Monclair State College
Assistant Director, Division of Extension and Continuing Education
Assistant Professor of Industrial Technology-1975

[^5]H. Wendell Alford-B.A., John B. Stetson University; B.D., Southwestern Baptist Theological Seminary; B.S.L.S., North Texas State University Assistant Director of Library Services (Technical Services) Associate Professor-1959 (1967)<br>Donald W. Gray-A.B., Asbury College; B.D., Emroy University; M.A.L.S., University of Minnesota Assistant Director of Library Services (Public Services) Associate Professor-1967 (1975)

Robert C. Johnson-B.A., University of Iowa; M.A., University of Northern Iowa Assistant to Director of Athletics-1974

## Deans of the Colleges

Robert E. Morin-B.S., M.S., Northwestern University; Ph.D., University of Wisconsin Dean of the College of Business and Behavorial Sciences Director, Center for Business and Behavorial Research Professor of Psychology-1972
Howard Knutson-B.A., Luther College; M.A., Ed.D., University of Wyoming Dean of the College of Education Director of Teacher Education Professor of Education-1953 (1968)
Janet L. Travis-A.B., M.A., Ph.D., Boston University Dean of the College of Humanities and Fine Arts Associate Professor of Philosophy-1974
Clifford G. McCollum-B.S., M.A., Ed.D., University of Missouri Dean of the College of Natural Sciences Professor of Science-1949 (1968)

## DIVISION OF STUDENT SERVICES

Thomas W. Hansmeier-B.A., M.A., University of Northern Iowa; Ed.D., Michigan State University Vice-President for Student Services and Special Assistant to the President Professor of Education-1971
Wayne L. Morris-B.S., M.S., Indiana University Assistant to the Vice-President for Student Services-1970 (1974)
Janice F. Abel-B.M.E., M.M.E., Drake University; Ed.D., Indiana University Director of Academic Advising and New Student Orientation-1972
Merrill F. Fink-B.A., Central Michigan University; M.A., University of Michigan Registrar-1946 (1972)
Lewis E. Glenn-L.L.B., George Washington University Assistant Registrar-1966 (1972)
Jack L. Wielenga-B.A., M.A., Ed.S., University of Northern Iowa Director of Admissions-1959 (1972)
Paul C. Kelso-B.A., Northeast Missouri State University; M.Ed., Ed.D., University of Missouri Director of Student Counseling Services-1948 (1969)
JoAnn Carlo Cummings-B.A., M.A., Colorado State College Counselor, Counseling Center-1963 (1974)
Leonard R. Davis-B.A., Coe College; M.S., University of Iowa Counselor (Counseling Psychologist), Counseling Center-1964
Martin R. Edwards-B.S., M.A., Central Michigan University Counselor, Counseling Center-1973
Norman L. Story-B.A., David Lipscomb College; M.A., Western Michigan University; Ph.D., California School of Professional Psychology at Los Angeles Counselor (Clinical Psychologist), Counseling Center-1968
Joyce E.Alberts-B.A., M.A., University of Northern Iowa Counselor, Counseling Center-1968
Dennis L. Hendrickson-B.A., M.A., University of Northern Iowa Associate Director of Admissions-1971 (1974)
Noreen M. Hermansen-B.S., Oklahoma College of Liberal Arts; M.A., University of Northern Iowa Admissions Counselor-1968 (1974)
Kent A. Ogden-B.A., University of Northern Iowa Assistant Director of Admissions-1969 (1975)
Philip L. Patton-B.A., University of Northern lowa Admissions Counselor-1972

Reginald John Green-B.A., Luther College; M.A., University of Northern Iowa Admissions Counselor and Assistant Football Coach-1974
Clifford S. Swartz-B.A., Immaculate Conception College; M.A., University of Northern Iowa Coordinator of Veterans Affairs-1970 (1973)
Dennis P. Jensen-B.A., M.A., University of Northern Iowa Director of Financial Aids-1958 (1965)
Harold J. Burris-B.A., Brothers College, Drew University, New Jersey; M. Theology, Garrett Theological Seminary; M.A., Northwestern University Coordinator, University Grants and Contracts and International Student Affairs Adjunct Assistant Professor of Religion-1975
Larry R. Routh-B.A., Kearney State College, Nebraska; M.S., Ph.D., University of Kansas Director of Career Planning and Placement-1973
Travis L. Montgomery-B.A., M.A., University of Missouri at Columbia Assistant Director of Career Planning and Placement-1974
Terry L. Besser-B.S., Iowa State University; M.A., University of Northern Iowa Assistant Director, Career Planning and Placement-1975
Clark K. Elmer-B.A., University of Michigan; M.A., Michigan State University Director of Housing - 1972
Patricia B. Enos-B.A., Cornell College; M.Ed., University of Northern Iowa Assistant Director of Housing-1974
John F. Ketter-B.S., George Williams College; M.A., The Ohio State University Director of Maucker Union and Director of Student Activities-1965 (1972)
John S. Zahari-B.A., Michigan State University Director of Dining Services-1965 (1967)
Gayle A. Hodgson-B.S., Iowa State University Administrative Dietitian-1965
R. Kent Ruby-B.S., Northwest Missouri State College Assistant Director of Dining Services-1967 (1971)
John E. Blumgren-M.D., University of Iowa Director, Student Health Service-1969 (1970)
Charles A. Waterbury-B.A., M.D., University of Iowa Associate Director, Student Health Service-1974
Frederic G. Loomis-B.S., M.D., University of Iowa Staff Physician-1972
Carl Jack Lutt-B.S.M., M.D., Creighton University Staff Physician-1975

## DIVISION OF ADMINISTRATIVE SERVICES

Robert D. Stansbury-B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa Vice-President for Administrative Services Associate Professor of Education-1968 (1973)
Philip C. Jennings-B.S., M.S., Iowa State University Business Manager-1942 (1945)
James L. Bailey-B.A., M.A., University of Minnesota Assistant Business Manager Treasurer- 1950
Leland A. Thomson-B.A., M.A., University of Northern Iowa; Ed.D., University of Denver Director of Planning-1968 (1972) Associate Professor of School Administration and Personnel Services (1975)
Donald F. Tiernan-B.S., Iowa State University Director of Data Processing-1967
Donald R. Walton-B.A., Saint Ambrose College; M.A., University of Northern Iowa Assistant to the Vice-President for Administrative Services-1966 (1975)
Gerald D. Bisbey-B.A., University of Northern Iowa; M.S., Iowa State University; Ph.D., University of lowa
Associate in Research-1964
John F. Golz-B.A., M.A., University of Northern Iowa Assistant in Research-1971
Kenneth A. Wiseman-B. Arch., University of Nebraska Assistant to the Director of Planning-1973

Thomas E. Paulson-B.S.C.E., University of North Dakota; B.S.B.A., University of Minnesota Director of Engineering Services-1974
Victor C. Potter-B.S.M.E., Iowa State University Director of Plant Services-1974
Allen D. Perry-B.B.A., University of Iowa Assistant Director of Plant Services-1972 (1975)
Richard A. Cottrill-B.B.E., M.A., Eastern Michigan University Acting Director of Personnel-1973 (1975)
Donald R. Boss Purchasing Agent-1964
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## DIVISION OF UNIVERSITY RELATIONS AND DEVELOPMENT

Edward V. Voldseth-B.A., University of Montana; M.A., Teachers College, Columbia University; Ph.D.. University of Iowa
Vice-President for University Relations and Development-1964 (1971)
Pauline L. Sauer-B.Ed., Chicago Teachers College; M.A., University of Michigan; Ph.D., Cornell University
Director of the Museum Associate Professor of Biology-1949 (1958)
Donald A. Kelly-B.A., M.A., University of Iowa Director of Public Information Services-1964 (1971)
Vicki Sue Grimes-B.A., University of Iowa Assistant Director of Public Information Services, News Service Editor-1970 (1972)
John M. Nicol-B.J., University of Missouri at Columbia; M.A., University of Northern Iowa University Publications Coordinator-1971
L. M. "Lee" Miller-B.A., University of Northern Iowa Director of Alumni Affairs-1971

## OFFICE OF EDUCATIONAL OPPORTUNITY PROGRAMS AND SPECIAL COMMUNITY SERVICES

Norris G. Hart-B.A., Huston-Tillotson College; M.A., Syracuse University
Director of Educational Opportunity Programs and Special Community Services-1971 (1972)
Willie Criddle. Jr.-B.A., Texas Southern University; M.A.. University of Oklahoma at Norman Administrative Assistant for Talent Search and Upward Bound Projects-1973
Anthony Stevens-B.A., Wartburg College Administrative Assistant for On-Campus Educational Opportunity Programs-1972 (1973)

## Assistants to Administrators

## OFFICE OF THE PRESIDENT

Doris L. Miller
Administrative Assistant

## DIVISION OF INSTRUCTION

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Academic Publications Editor
Office of Broadcasting Services
Jennifer R. Alt
Producer/Announcer
Erik J. Baum
Producer/Program Associate
Robert K. Dorr
Music Producer/Announcer
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Arts and Public Affairs Producer
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News and Public Affairs Producer
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Program Director
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Listener Support/Volunteer Coordinator Neal W. Proctor

Stations' Development Director
Educational Opportunity Programs
and Special Community Services
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Administrative Assistant for UNI Ethnic Minorities Cultural and Educational Center
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Juanita Wright
Adviser-Counselor, On-Campus Educational Opportunity Program
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Earlene Archie
Coordinator, Cultural Enrichment Program (UNI-CUE)
Doris B. Gates
Assistant Director (UNI-CUE)
Judith M. Johnson
Administrative Assistant (UNI-CUE)
David L. Patterson
Administrative Assistant for Graduate Programs, E.O.P.
Royce Parker
Sewing Instructor, UNI-CUE Community Programs
Margaret Baskerville
Senior Counselor, Talent Search
Mary Anderson
Street Counselor, Talent Search

Yancy Beavers
Counselor, Talent Search, and Financial Aids Coordinator, E.O.P.

College of Humanities and Fine Arts
Gloria J. Rapinchuk
Director, Learning Resources Center
College of Education
Edith Ann Hantula
Director, Day Care Center
Julie Hanna Foth
Assistant to Director, Day Care Center
Debra Sue Iverson
Assistant to Director, Day Care Center
Cheryl R. Smith
Drug Abuse Prevention Project
Angeline Knoll.
Registered Nurse, Malcolm Price Laboratory School

## DIVISON OF UNIVERSITY RELATIONS AND DEVELOPMENT

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Assistant to the Director
Robert L. Justis
Assistant to the Director

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Information Services Photographer
Elisabet H. Morris
Assistant Publications Coordinator
Nancy A. Ross
Assistant Editor
James W. Shaffer
Sports Information Director
Carole J. Shelley
Alumni Publications Editor
Marion (Mari) K. Zwirgzdas
Assistant Editor

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Assistant to the Director of Financial Aids
Office of Housing (Student)
Goldie C. Fox
Director of Housekeeping Services
Josephine R. Gleason
Executive Housekeeper
Clozelle R. Harris
Human Relations/Program Assistant

Jan H. Hollins
Resident Manager, Married Student Housing Ione Zach

Assistant Executive Housekeeper
Barbara A. Beddow
Director, Campbell Hall
Hans E. Boenish
Director, Rider Hall
Laurel Ann Brannian
Director, Lawther Hall
Daniel Wayne Conner
Director, Noehren
Fred P. Fotis
Director, Shull Hall
Janice L. Hildreth
Director, Hagemann Hall
Michael. J. Jungers
Director, Bartlett Hall
Roger Joseph Piwoworski
Director, Bender Hall
Brenda Rust
Director, Dancer Hall
The J. W. Maucker Union
Loydene L. Cawelti
Assistant Director, Programs
Dennis F. Nelson
Assistant Director, Scheduling and Operations
Frances M. Wilson
Business Supervisor
Student Health Service
James J. Hughes
Pharmacist
Vivian P. Link
Registered Nurse, Supervisor

## DIVISION OF ADMINISTRATIVE <br> SERVICES

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James J. Bartlett
Programmer-Analyst
Kenneth L. Cox
Systems Analyst
James L. Wolf
Assistant Director, Academic Computing Services

## Administrative Data Processing

Mary Ann Cross
Programmer
Donald D. Hennings
Assistant Director, Analysis
Dale E Kimes
Assistant Director, Software
Toby L. McClellan
Systems Analyst
Phyllis J. Michaelides
Systems Analyst

Larry W. Proehl
Programmer-Analyst
Robert A. Sloan
Programmer-Analyst
Merlin D. Taylor
Assistant Director, Operations

## Business Office

E. Jannette Birum

Supervisor, Word Processing Center
Roxanne Conrad
Assistant in Purchasing
Anne L. George
Assistant Payroll Supervisor
Donald D. Greene
Account-Project Manager CETA
John C. O'Leary
Accountant
Roger D. Pohlmann
Accounts Receivable Supervisor
Robert M. Sheridan
Payroll Supervisor
Gary B. Shontz
Chief Accountant
Engineering Services
M. Nevlyn Evans

Administrative Assistant
Victor P. Gibson
Construction Architect
Berwyn B. Johnson
Mechanical Engineer

## Plant Services

Robert Engleman
Supervisor, Building Service
Kenneth Nieman
Supervisor, Central Stores
Victor B. Rhoades
Supervisor, Power Plant
John W. Ackerman
Foreman, Transportation Shop
Clyde A. Coen
Foreman, Custodial
Henry J. Doden
Foreman, Grounds Shop
Eugene S. Eddy
Foreman, Electrical Shop
Bernard M. Hansen
Foreman, Paint Shop
Merlyn Heidt
Foreman, Greenhouse-Landscaping
Jack Heritage
Foreman, Custodial
Harold A. Owens
Foreman, Carpentry Shop
George Pearce
Foreman, Custodial
Marion R. Walker
Foreman. Plumbing and Heating Shop

University of Northern Iowa

## Safety and Security

Rollin G. Evers
Director of Safety and Security John D. Stalberger

Assistant Director of Safety and Security

## Staff Personnel Office

Raymond I. Harris
Personnel Assistant
Mary C. Lindaman
Personnel Assistant

## UNIVERSITY LIBRARY

Judy A. Hansen
Library Associate, Circulation
Joan Loslo
Library Associate, Cataloging
Coyla E. McCann
Library Associate
Timothy E. Pieper
Library Associate, Circulation
Nancy Houmes Stage
Library Associate, Acquisitions
June Talbott
Library Associate, Cataloging
Della Taylor
Library Associate, Acquisitions
Elizabeth Vetter
Library Associate, Reader Service



## Emeritus Faculty

Lucile E. Anderson-B.A., University of Northern Iowa; M.A., University of Chicago Associate Professor of Teaching-1930 (1962)<br>Paul F. Bender-B.A., University of Iowa; M.A., Columbia University; Ed.D., New York University Dean of Students-1921 (1964)<br>Harold E. Bernhard-B.A., Carthage College, Illinois; B.D., Chicago Lutheran Theological Seminary; Ph.D., University of Chicago<br>Director of the Bureau of Religious Activities<br>Professor of Religion-1949 (1974)<br>E. Jean Bontz-B.A., M.A., Ph.D., Úniversity of Iowa<br>Professor of Physical Education for Women<br>Head of the Department of Physical Education for Women-1949 (1972)<br>Lena P. Buckingham-B.S., Northeast Missouri State Teachers College; M.S., Iowa State University Associate Professor of Home Economics-1953 (1968)<br>Louis Bultena-B.A., University of Dubuque; B.D., San Francisco Theological Seminary; M.Ph., Ph.D., University of Wisconsin<br>Professor of Sociology<br>Head of the Department of Sociology and Anthropology-1946 (1973)<br>E. E. Cole-B.S., Iowa State University<br>Director of Physical Plant-1930 (1962)<br>John Paul Cowley - B.A., Heidelberg College, Ohio; M.A., University of Wwichita; Ph.D., Yale University Professor of English-1945 (1973)<br>Walter D. DeKock-B.A., Western Michigan University; M.A., Ed.D., Columbia University Professor of Education-1956 (1971)<br>E. C. Denny-B.A., Indiana University; M.A., University of Chicago; Ph.D., University of Iowa Professor of Education and Head of the Department-1923 (1955)<br>Mary Dieterich-B.A., Grinnell College; B.S.L.S., Columbia University Reference Librarian (Social Science) Archives Librarian-1930 (1970)<br>Margaret Divelbess-B.A., Grinnell College; M.A., Columbia University Associate Professor of Teaching 1927 (1964)<br>Lloyd V. Douglas-B.S., M.A., Ph.D., University of Iowa Professor of Business Education Head of the Department of Business Education and Office Administration-1937 (1970)<br>R. R. Fahrney - B.A., Mt. Morris College; M.A., Ph.D., University of Chicago<br>Professor of History-1929 (1965)<br>Earnest C. Fossum-B.A.,Augustana College, South Dakota; M.A.. Ph.D., University of Iowa Associate Professor of Speech Director of the Placement Bureau-1943 (1973)<br>V. D. French-B.S., Drake University; M.D., Rush Medical College<br>Director, Student Health Service-1952 (1955)<br>laura K. Gilloley-B.S., M.A., University of Minnesota Associate Professor of Teaching-1950 (1971)<br>Herbert V. Hake-B.A., Central Wesleyan College, Missouri; M.A., University of Iowa Director of Radio and Television-1938 (1973)<br>Alden B. Hanson-B.A., St. Olaf College; M.Ph., University of Wisconsin Associate Professor of English Foreign Student Adviser-1946 (1975)<br>Rose L. Hanson-B.S., University of Nebraska; M.A., University of Iowa Assistant Professor of Teaching-1920 (1956)<br>William P. Happ. JR.-B.S., Northwestern University; M.S., Ph.D., University of lowa Professor of Teaching-1948 (1974)<br>Leta Norris Harmon-B.S., Central State College, Oklahoma; M.Ed., University of Oklahoma Associate Professor of Teaching Coordinator of Student Teaching-1950 (1975)<br>James S. Hearst<br>Professor of Creative Writing-1943 (1975)<br>Bernice Helff-B.A., University of Iowa: M.A., Columbia University Associate Professor of Teaching-1942 (1972)

University of Northern Iowa
S. C. Henn-B.A., Colorado College; M.S., University of Chicago; M.D., Rush Medical College Director, Student Health Service, and Staff Physician-1958 (1971)
Frank W. Hill-B.Mus., M.Mus., Eastman School of Music, University of Rochester Associate Professor of Violin, Viola, and Theory-1929 (1971)
Olive J. Holliday-B.A., University of Northern Iowa; M.A., University of Illinois
Associate Professor of Home Economics-1949 (1974)
George H. Holmes-B.A., M.A., University of Michigan
Director of University Relations-1929 (1971)
Mavis L. Holmes-B.A., M.A., Ph.D., Northwestern University
Dean of Students-1958 (1973)
Esther M. Hult-B.Ed., Wisconsin State University, Superior; M.Ph., Ph.D., University of Wisconsin Professor of Education-1943 (1972)
James W. Kercheval-B.A., University of Northern Iowa; M.S., Ph.D., University of Iowa Professor of Chemistry-1949 (1972)
Dorothy MaeKoehring-B.A., Kansas State University; M.A., Columbia University; Ph.D., Yale University Professor of Education
Regional Training Program Officer (Director) for Project Head Start-1933 (1973)
C. W. Lantz-B.A., M.A., Ph.D., University of Illinois

Professor of Biology
Head, Department of Science-1921 (1957)
Edna L. Mantor-B.A., University of Iowa; M.A., Columbia University Associate Professor of Teaching-1923 (1968)
Frank E. Martindale-B.Ed., Wisconsin State University, Stevens Point; M.Ph., Ph.D., University of Wisconsin
Professor of Education
Head of Department of Curriculum and Instruction-1948 (1972)
G. Douglas McDonald-B.S., University of Pennsylvania; M.S., University of Minnesota Assistant Professor of Marketing-1963 (1973)
Merritt E. Melberg-B.S., M.S., Iowa State University; Ed.D., University of Northern Colorado Professor of Education-1958 (1973)
Mardell L. Mohn-B.S., Bradley University: M.S., University of Wisconsin Associate Professor of Teaching Coordinator of Student Teaching-1948 (1975)
Evelyn J. Mullins-B.A., Grinnell College, B.S.L.S., Columbia University Order Librarian-1930 (1971)
Joseph P. Paul-B.A., Indiana University; M.A., Ph.D., University of Wisconsin Director, Bureau of Research-1916 (1954)
Daryl Pendergraft-B.A., Buena Vista College; M.A., Ph.D., University of Iowa Professor of History - 1946 (1975)
Willard J. Poppy-B.Ed., Wisconsin State University, Oshkosh; M.S., Ph.D., University of Iowa Professor of Physics-1949 (1975)
Jeannette Rogers Potter-B.A., University of Northern Iowa; M.S., University of Wisconsin; Ed.D., University of Oregon
Professor of Physical Education for Women-1955 (1975)
Howard O. Reed-B.S., Bradley University; M.A., Northwestern University; M.Ed., Ed.D., University of IIlinois Professor of Industrial Arts Head of the Department of Industrial Arts and Technology-1954 (1971)
H. Willard Reninger-B.A., M.A., Ph.D., University of Michigan Professor of English Head of the Department of English Language and Literature-1939 (1968)
George C. Robinson-B.A., University of Wisconsin; M.A., Ph.D., Harvard University Professor of Political Science-1922 (1962)
Myron E. Russell-B.Mus., Kansas State University; M.Mus., Eastman School of Music, University of Rochester; Ph.D., University of Michigan
Professor of Woodwind Instruments
Head of the Department of Music-1929 (1973)
Leland L. Sage-B.A., Vanderbilt University; M.A., Ph.D., University of Illinois Professor of History-1932 (1967)
Lou A. Shepherd-B.A., University of Northern Iowa; M.A., Columbia University Professor of Primary Education-1924 (1953)
Herbert M. Sllvey-B.S., Central Missouri State College; M.A., Ed.D. University of Missouri Director of the Bureau of Research and Examination Services-1947 (1974)

Ernestine L. Smith-B.A., M.S., University of Michigan
Professor of Geography-1936 (1973)
Julia L. Sparrow-B.S., St. Cloud State College; M.A., Ph.D., University of Iowa
Professor of Education-1944 (1975)
Norman C. Stageberg-B.S., University of Minnesota; M.A., University of Iowa; Ph.D., University of Wisconsin
Professor of English-1946 (1973)
Myrtle M. Stone-B.A., Washington State University; M.B.A., University of Washington; Ed.D., New York University
Professor of Teaching-1928 (1966)
Marguirette May Struble-B.A., M.A., Ph.D., University of Iowa
Professor of Teaching-1924 (1969)
M. R. Thompson-B.A., Western Union College; M.A., Ph.D., University of Iowa Professor of Economics
Head, Department of Social Science-1921 (1955)
Eulalie Turner-B.A., University of Iowa; M.A., Columbia University
Assistant Professor of Teaching-1915 (1951)
Grace Van Ness-B.A., Cornell College; M.A., Columbia University
Assistant Professor of Physical Education for Women-1919 (1956)
Guy W. Wagner-B.A., University of Northern lowa; M.A., Ph.D., University of Iowa Professor and Director of the Educational Media Center-1941 (1970)
Emily Josephine Yeager-B.S., Louisiana State University; M.S., University of Colorado Assistant Professor of Home Economics-1954 (1968)


# Instructional Staff 1975-1976 

John J. Kamerick-B.A., St. Ambrose College; M.A., Ph.D., University of Iowa President of the University Professor of History-1970<br>James G. Martin-B.A., M.A., Indiana State College; Ph.D., Indiana University Vice-President and Provost Professor of Sociology-1971

## Faculty

Fred A. Abraham-B.S., M.S., University of Wisconsin; M.A., Ph.D., University of Oregon Assistant Professor of Economics-1973
Ronald Abraham-B.B.A., M.B.A., University of Wisconsin; C.P.A. Assistant Professor of Accounting-1974
Iradge Ahrabi-Fard-B.A., M.A., University of Northern Iowa; Ph.D., University of Minnesota Assistant Professor of Teaching: Physical Education-1972
lyle K. Alberts-B.A., M.A., University of Northern Iowa Assistant Professor of Political Science and Social Science-1964 (1967)
James E. Albrecht-B.A., M.A., Ed.S., University of Northern lowa; Ed.D., University of Indiana Professor of Teaching: Secondary Education Principal of Northern University High School-1965 (1973)
John F. Aldrich-B.S., University of Rhede Island; M.Ed., Boston University Associate Professor of Teaching: Physical Education-1955 (1970)
Mary Nan Koen Aldridge-B.S., M.S., Texas College of Arts and Industries; Ed.S., University of Northern Iowa
Assistant Professor of Education-1967 (1970)
Charles F. Allegre-B.S., Kansas State Teachers College; M.S., Ph.D., University of Iowa Professor of Biology-1950 (1975)
Rosemary J. Allen-B.A., University of Northern Iowa Instructor in Education-1973
Richard Alterman-B.S., M.E., University of Florida; Ph.D., University of Michigan
Assistant Professor of Education-1975
Edward W. Amend-B.A., Midland Lutheran College; M.Div., S.T.M., Lutheran School of Theology; Ph.D., University of Chicago
Director of Individual Studies Program Associate Professor of Religion and Humanities-1967 (1972)
Howard L. R. Amundson-B.A., M.S.W., University of Kansas Visiting Assistant Professor of Social Work-1968
B. Wylie Anderson-B.A., M.A., Colorado State College; M.A., University of Denver, Ph.D., University of Iowa
Associate Professor of Economics
Head of the Department of Economics-1966 (1973)
Floyd R. Anderson-B.A., Concordia College; M.S., University of Montana
Associate Professor of Teaching: Physical Education-1966 (1974)
James D. Anderson-B.S., M.S., Eastern Illinois University
Assistant Professor of Physical Education-1965 (1968)
Ruth B. Anderson-B.A., University of California; M.S.W., Columbia University Associate Professor of Social Work-1969 (1975)
Wayne I. Anderson-B.A., M.S., Ph.D., University of lowa
Professor of Geology
Head of the Department of Earth Science-1965 (1972)

[^6][^7]University of Northern Iowa

Jerry Lee Bonham-A.B., Southwest Missouri State University; M.A., Ph.D., University of Illinois, Urbana Assistant Professor of Political Science-1973
Myra R. Boots-B.A., Grinnell College; M.A., University of Northern Iowa
Assistant Professor of Speech Pathology-1965 (1969)
Richard R. Brady-B.A., University of Southern California; M.A., Fresno State College; M.Ed., Ph.D., University of Southern California
Associate Professor of Education-1970
Robert Paul Brimm-B.Ed., Southern Illinois University; M.Ed., Ed.D., University of Missouri Professor of Education-1948 (1959)
Douglas E. Brintnall-B.A., University of Iowa; M.A., Union Theological Seminary; Ph.D., Columbia University

- Assistant Professor of Anthropology-1974

Ronald Dean Bro-B.A., M.A., University of Northern lowa; Ed.D., University of Nebraska Professor of Industrial Technology-1967 (1975)
Roberta M. Broeren-B.Ed., University of Wisconsin, Stevens Point; M.Ed., Ed.D., Wayne State University Associate Professor of Education-1972 (1973)
Patrick A. Brooks-B.A., Yankton College; M.A., University of Redlands, California; Ph.D., University of Minnesota
Associate Professor of English-1965 (1969)
Emily Clara Brown-A.B., Ohio State University; M.A. in Ed., Arizona State University; Ph.D., University of Arizona
Professor of History-1966 (1969)
John C. Brown-B.A., University of Northern Iowa
Assistant Professor of Art-1969 (1973)
Leander A. Brown-B.A., Fisk University; M.A., Roosevelt University Assistant Professor of Education-1970
Walker T. Brown-A.B., Gettysburg College; M.S.W., Columbia University; Ph.D., Ohio State University Assistant Professor of Social Work-1974
Gary E. Browning-B.S., West Texas State University; M.S., Iowa State University
Assistant Professor of Industrial Technology-1972
John Edward Bruha-B.S., University of Wisconsin, Stevens Point; M.S., University of Wisconsin, Madison Assistant Professor of Mathematics-1959 (1965)
Donald Bumpass-B.A., M.S., Oklahoma State University Assistant Professor of Economics-1974
Kenneth G. Butzier-B.A., University of Northern lowa; M.S., University of Wisconsin Associate Professor of Teaching: Speech and Drama-1960 (1973)
Mary R. Butzier-B.A., University of Northern Iowa Instructor in Teaching: Elementary Education-1973
Robert Byrnes-B.A., University of Northern Iowa Adjunct Instructor in Music and Carilloneur-1974
Daniel J. Cahll--B.S., M.A., Loyola University; Ph.D., University of Iowa Professor of English Head of the Department of English Language and Literature-1968 (1972)
Mariorie D. Campbell-B.Sc.Ed., M.A., Ohio State University Associate Professor of Art-1949 (1970)
Roy Joseph Carter-B.F.A., M.F.A., San Francisco Art Institute Assistant Professor of Art-1971 (1972)
Mary Lee Cathey-B.S., Florence State College; M.A., Ed.S., George Peabody College Assistant Professor of Physical Education for Women-1967
Donald L. Carr-B.A., M.A., Ph.D., University of Iowa Associate Professor of Education-1975
G. Scott Cawelti-B.A., M.A., University of Northern Iowa Assistant Professor of English-1968 (1973)
Henri L. Chabert-Institut des Sciences Politiques, Lic. en Droit; Bar exam (Paris) Lic es Lettres, Competitive exam du C.A. (Sorbonne) and of the U.N.; Doctorat de I'Universite de Paris (Sorbonne) Professor of French-1961 (1966)
James G. Chadney. Jr.-B.S., Portland State College; M.A., Michigan State University Assistant Professor of Anthropology-1968
James G. Chaney-B.A., St. Fidelis College; M.F.A., Kent State University School of Art Assistant Professor of Art-1975
James C. Сhang-B.S., Mt. Union College, Ohio; Ph.D., University of California Professor of Chemistry Acting Head of the Department of Chemistry-1964 (1975)

Delsie Darlene Charais-B.S., Moorhead State College, Minnesota; M.A., Colorado State College Assistant Professor of Teaching: Early Childhood Education-1966 (1969)
Hsi-Ling Cheng-B. Law, National Chengchi University; M.A., Columbia University Assistant Professor of History-1966
Marion Lyle Chiattello-B.S., M.A., M.S., Ph.D., Northern Illinois University Associate Professor of Management-1970 (1974)
Bruce Alan Chidester-B.M., Augustana College, Illinois; M.M., Northern Illinois University Assistant Professor of Music (Trumpet)-1969 (1972)
C. David Christensen-B.A., M.A., University of Northern Iowa Instructor in Teaching: Elementary Education-1974
Beatrice Cruz Chung-B.A., M.A., University of Northern Iowa Instructor in Spanish-1975
Roy Chung-B.A., M.A., University of Wisconsin Associate Professor of Geography and Demography-1958 (1973)
Robert E. Clark-B.A., Oklahoma State University, Stillwater; M.A., University of Oklahoma; Ph.D., University of Nebraska Assistant Professor of Geography-1965
Robert E. Claus-B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa Professor of Sociology-1959 (1970)
Bernard L. Clausen-B.A., Colgate University; M.S., University of Michigan Associate Professor of Biology-1959 (1970)
James J. Clausen-B.A., University of Northern Iowa Instructor in Teaching: Special Education-1975
Marion Clay-B.A., M.A., University of Northern Iowa Instructor in German-1975
Carlos C. Cobos-B.A., California State University at Fresno; M.F.A., Cranbrook Academy of Art Assistant Professor of Art-1974
Phyllis Bowman Conklin-B.S., Carson-Newman College. Tennessee; M.S., Ohio University Assistant Professor of Home Economics-1968
R. Forrest Conklin-B.A., Howard Payne College; M.A., Baylor University; Ph.D., Ohio University Professor of Speech Director of Forensics-1968 (1975)
Carol Cooper-B.S., Oregon State University; M.S., Smith College Assistant Professor of Physical Education for Women-1974
Steven B. Corbin-B.A., University of Northern Iowa; M.Ed., Colorado State University; Ed.D., Virginia Polytechnic Institute and State University
Assistant Professor of Business Education-1975
Lee E. Courtnage-B.A., Wayne State Teachers College, Nebraska; M.A., Ed.D., University of Northern Colorado Professor of Education and Educational Psychology Director of Special Education-1968 (1971)
Carol L. Hendrickson Crane-B.A., University of Northern Iowa Instructor in Mathematics-1975
Elinor Ann Crawford-B.A., M.A., University of California, Berkeley; Ph.D., University of Oregon Professor of Physical Education for Women Acting Head of the Department of Physical Education for Women-1949 (1975)
John S. Cross-B.S., M.S., University of Illinois, Urbana Assistant Professor of Mathematics-1963
David R. Crownfield-B.A., Harvard University; B.D., Yale University; Th.M., Th.D., Harvard University Professor of Philosophy and Religion-1964 (1971)
Donald G. Cummings-B.A., Coe College; Ph.D., Tulane University Assistant Professor of Economics-1965
Barbara J. Darling-B.A., University of Northern Iowa; M.A.. University of Northern Colorado Associate Professor of Physical Education for Women-1958 (1975)
Donald R. Darrow-B.A., M.A., University of Northern Iowa Assistant Professor of Teaching: Industrial Technology-1973
Darrel W. Davis-B.A., M.A., University of Northern Iowa; Ph.D., Oklahoma State University; C.P.A. Assistant Professor of Accounting-1969 (1971)
George F. Day-B.A., Dartmouth College; M.A.T., Harvard University; Ph.D., University of Colorado Associate Professor of English-1967 (1970)
Charles Van Loan Dedrick-A.B., Brown University; M.A.T., Rollins College; M.Ed., Ed.D., University of Florida Assistant Professor of Education-1971

University of Northern Iowa

Bernard C. DeHoff-B.A., Franklin and Marshall College; M.A., Indiana University Associate Professor of English-1955 (1969)
Walter E. DeKock-B.A., Central University of lowa; M.A., University of Northern Iowa; Ph.D., Ohio State University
Associate Professor of Science Education-1964 (1973)
David D. Delafield-B.F.A., M.A., Ph.D., Ohio State University Professor of Art-1951 (1963)
Kenneth J. De Naulit-B.S., Stanford University; M.S., University of Wyoming; Ph.D., Stanford University Assistant Professor of Geology-1973
Ervin A. Dennis-B.A., M.A., University of Northern Colorado; Ed.D., Texas A\&M University Professor of Industrial Technology-1973
Gordon B. Denton-B.B.A., University of Texas; M.B.A., University of Iowa Associate Professor of General Business-1965 (1970)
Dleeep Dhavale-B.S., Indian Institute of Technology, Bombay; M.S., State University of New York at Buffalo; Ph.D., The Pennsylvania State University Assistnt Professor of Business-1974
Joan Englund Diamond-B.A., Knox College; M.S., University of Illinois Associate Professor of Teaching: Educational Media-1957 (1973)
Saul L. Diamond-B.A., Syracuse University; M.B.A., Wharton School of Business Assistant Professor of Marketing-1967
Roger Ditzenberger-B.A., M.A., University of Northern lowa Assistant Professor of Business Education and Teacher Educator-Materials Specialist-1968
Douglas D. Doerzman-B.A., M.A., University of Northern Iowa Assistant Professor of Teaching Coordinator of Student Teaching-1967 (1970)
H. Theodore Dohrman-A.B., Nebraska State College, Wayne; S.T.B., Ph.D., Harvard University Professor of Sociology-1966
Gregory M. Dotseth-B.A., Luther College; M.A., Western Washington State College; Ph.D., Iowa State University
Associate Professor of Mathematics-1966 (1974)
James L. Doud-B.S.E., M.S.E., Drake University Assistant Professor of Teaching: Elementary Education Principal of the University Elementary School-1970
Virgil E. Dowell-B.S., M.S., Kansas State Teachers College: Ph.D., University of Oklahoma Professor of Biology-1956 (1968)
John C. Downey-B.S., M.S., University of Utah; Ph.D., University of California, Davis Professor of Biology Head of the Department of Biology-1968
William H. Dreier-B.S., Iowa State University; M.A., Ph.D., University of Minnesota Professor of Education-1949 (1965)
Jacques F. Dubois-B.A., Kearney State College: M.A., University of Nebraska Assistant Professor of French-1966 (1971)
Jerry M. Duea-B.A., M.A.E., University of Northern Iowa Assistant Professor of Teaching: School Administration-1966 (1969)
Joan Meyer Duea-B.A., M.A., University of Northern lowa Associate Professor of Teaching: Elementary Education-1965 (1974)
Ann Mary Dunbar-B.A., Clark College; M.A., Ed.S., University of Northern Iowa Associate Professor of Education-1962 (1972)
David R. Duncan-B.S., M.S., North Dakota State University, Fargo; Ph.D., The University of Michigan. Ann Arbor
Associate Professor of Mathematics-1963 (1972)
David C. Dutler-B.S.Ed., M.S., Illinois State University Assistant Professor of Physical Education for Men-1975
Mary K. Eakin-B.A., Drake University; B.L.S., M.A., University of Chicago Associate Professor of Education-1958 (1968)
Charlene M. Eblen-B.A., University of Wichita; M.A., University of Northern Iowa Assistant Professor of English-1967 (1970)
Ror E. Eblen-B.A., Williams College. Massachusetts; M.A., University of Wichita; Ph.D., University of Iowa
Professor of Speech Pathology
Director of the Speech Clinic
Head of the Department of Speech Pathology and Audiology-1960 (1973)

Felipe R. J. Echeverria-B.A., Florida Presbyterian College; M.F.A., University of Arkansas Assistant Professor of Art-1969 (1974)
Jay Allen Edelnant-A.B., MacMurray College; M.A., Northwestern University Instructor in Speech-1971
John L. Eiklor-B.A., University of Wichita; M.A., Ph.D., Northwestern University Professor of History-1963 (1970)
Charlotte E. Lawton Eilers-B.A., M.A., University of Northern Iowa Assistant Professor of Speech-1965 (1970)
Lawarence John Eilers-B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa Associate Professor of Biology-1968
Ivan L. Eland-B.A., University of Northern Iowa; M.A., University of Colorado Associate Professor of Education Director of Safety Education-1960 (1966)
Robert Eller--B.A., M.A.. University of Iowa Assistant Professor and Audio-Visual Specialist-1961 (1966)
Ralph D. Engardt-B.S., Ph.D., Iowa State University Associate Professor of Physics-1965 (1973)
Harley E. Erickson-B.S., Wisconsin State University, LaCrosse; M.S., Ph.D., University of Wisconsin Professor of Education-1963 (1967)
Donald R.Erusha-B.A., Coe College; M.A., University of Iowa Associate Professor of Physical Education for Men-1963 (1972)
Brunhilpe Eska-B.S., University of California, Los Angeles; M.S., Ph.D., Purdue University Assistant Professor of Home Economics-1975
Edward S. Esbeck-B.S., Drake University; M.A.Ed., State University of Iowa; Ph.D., Case Western Reserve University Associate Professor of Business-1975
Reed Estabrook-B.F.A., Rhode Island School of Design; M.F.A., Art Institute of Chicago Assistant Professor of Art-1974
Russell E. Euchner-B.A., M.A., University of Northern Iowa Assistant Professor of Education-1960
Wayne A. Evenson-B.A., B.S.E.E., J.D., University of Iowa Professor of Business Law-1966 (1972)
Beverly Wynn Ewald-B.A., Colorado State College Instructor in Teaching: Elementary Education-1975
Manuel A. Febles-B.A., B.S., Instituto de Cardenas, Cuba; Doctor in Law, University of Havana; M.A., University of lowa Assistant Professor of Spanish-1967 (1969)
Rosa Maria Findlay-B.A., University of Puerto Rico; M.A., University of Northern Iowa Instructor in Teaching: Foreign Language-1964
Donald G. Finegan-B.F.A., M.A., Ohio State University Professor of Art-1955 (1966)
Judith M. Finkelstein-B.S.Ed., University of Illinois; M.A.E., University of Northern Iowa Assistant Professor of Teaching; Early Childhood Education-1968 (1971)
D. Louis Finsand-B.S., Wisconsin State University, LaCrosse; M.A., University of Northern Iowa Associate Professor of Teaching: Science-1964 (1973)
Evelyn L. Fitzgerald-B.A., Prairie View A\&M University, Texas; M.A., University of Wisconsin Instructor in Teaching: Language Arts-1975
Gordon B. Ford-A.B., Princeton University; A.M., Ph.D., Harvard University Associate Professor of English and Linguistics-1972
Louise C. Turner Forest-B.A., M.A., Bryn Mawr College; Ph.D., Yale University Professor of English-1948 (1960)
Stephen J. Fortgang-B.A., University of Chicago; M.A., Ph.D., Syracuse University Assistant Professor of Education-1975
Josef W. Fox-B.A., Pennsylvania State University; M.A., Louisiana State University; Ph.D.. University of Chicago Professor of Philosophy and Humanities-1947 (1959)
Adolfo Mariano Franco-B.A., Instituto de Cardenas, Cuba; Doctor of Law, Universidad de la Havana, Cuba; M.A., University of Iowa Associate Professor of Spanish-1967 (1969)
Robert L. Frank-B.S., M.E., Ed.D., University of Nebraska Professor of Education and Psychology-1962 (1970)

University of Northern Iowa
*Mary L. Wieking Franken-B.S., Stout State University; M.S., University of Wisconsin Assistant Professor of Home Economics-1969
Joseph E. Fratianni-B.A., Bridgewater State College, Massachusetts; M.A., University of Wisconsin Assistant Professor of Teaching
Coordinator of Student Teaching-1971 (spring)
Arnold J. Freitag-B.S., Purdue University; M.S., Iowa State University Assistant Professor of Industrial Technology-1968
Len A. Froyen-B.A., University of Northern Iowa; M.A., Michigan State University; Ed.E., Indiana University
Professor of Education
Head of the Department of Educational Psychology and Foundations-1963 (1970)
Sarah Jane Frudden-B.A., M.A., University of Northern Iowa Instructor in Curriculum and Instruction-1974
Sherry K. Gable-B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa Adjunct Assistant Professor of Education-1975
Edward J. Gabrielse-B.S., M.S., Stout State University Assistant Professor-Production Supervisor of the Educational Media Center-1967 (1970)
Joyce Alene Gault-B.A., University of Northern Iowa; M.Mus., D.Mus., Northwestern University Professor of Piano-1957 (1969)
Patricia L. Gaedelmann-B.A., M.A., University of Northern Iowa Instructor in Teaching: Physical Education--1972
Albert R. Gilgen-B.A., Princeton University; M.A., Kent State University; Ph.D., Michigan State University Professor of Psychology Head of the Department of Psychology-1973
Charles C. Gillette-B.S., Iowa State University; M.A., University of Northern Iowa; Ph.D.. Oklahoma State University Associate Professor of Economics-1966 (1972)
Andrew R. Gilpin-B.S.. M.A., Ph.D.. Michigan State University Assistant Professor of Psychology-1974
Robert F. Gish-B.A., M.A., Ph.D., University of New Mexico Associate Professor of English-1967 (1975)
Kathleen M. Gjerdingen-B.A.. University of Minnesota; M.M.. University of Colorado Instructor in Music-1972
George David Glenn-A.B., Shimer College; M.A., Northern Illinois University; Ph.D., University of Illinois, Urbana Associate Professor of Theatre-1966 (1975)
Kenneth G. Gogel-B.S., M.A., Ohio State University Professor of Art-1959 (1974)
Wal.ter J. Gohman-B.A., St. Cloud State College, Minnesota; M.A., University of Minnesota Associate Professor of Teaching: Science-1951 (1967)
Lowell R. Goodman-Ph.B., M.S., University of North Dakota; Ph.D., University of Illinois Assistant Professor of Geography-1966 (1970)
Ralph M. Goodman-B.A., M.A., Ph.D, University of California at Los Angeles Associate Professor of English and Linguistics-1964 (1970)
Terry Dean Goro-B.A., M.S., Southern Illinois University Assistant Professor of Education and Coordinator of Media Laboratories-1973
Robert C. Goss-B.S., Huntington College; M.S., Ph.D., Purdue University Professor of Biology-1961 (1968)
Peter G. Goulet-B.A., Denison University; M.B.A., Ph.D., The Ohio State University Assistant Professor of Management-1974
Jack E. Graham. Jr.-B.M.E.. Wichita State University; M.M., North Texas State University Assistant Professor of Wind Instruments-1967 (1972)
Stanley C. Grant-B.A., Coe College; M.A., University of Wyoming; Ph.D., University of Idaho Adjunct Professor of Geology-1970 (1975)
Alexandra B. Graves-B.S., Syracuse University; M.A., Denver University Visiting Instructor in Speech-1975
Elton E. Green-B.S., M.S., Kansas State University; Ed.D., University of Northern Colorado Professor of Physical Education for Men-1968 (1972)

[^8]Kenneth N. Green-B.A., Iowa State University; M.A., University of Northern Iowa; Ed.D., University of Arkansas
Associate Professor of Physical Education for Men-1967 (1974)
Wanda Kay Green-A.B., M.A., University of Northern Colorado
Assistant Professor of Physical Education for Women-1967 (1975)
Mrtchell A. Greene, Jr.-B.A., Dillard University; M.Sc., Case Western Reserve; Ph.D., University of Iowa Assistant Professor of Social Work-1972
Harry G. Guillaume-B.S., M.A., Ed.D, Columbia University Professor of Art-1948 (1956)
John D. Gunter-B.A., California State College at Sonoma; M.A., Ph.D., University of Oklahoma Assistant Professor of Geography-1974 (1975)
Ronald Dean Hahn-B.S., M.A., Northeast Missouri State College Assistant Professor of Business Education-1969
Leslie W. Hale, Jr.-B.M.E., M.M.E., Drake University; D.M.A., University of Missouri at Kansas City Professor of Teaching: Music-1960 (1974)
Frederick W. Halgedahl-B.Mus., Eastman School of Music; M.Mus., Kansas State College, Emporia Assistant Professor of Violin-1975
G. Jon Hall-B.A., Central State College, Oklahoma; M.A., Ph.D., Southern Illinois University Associate Professor of Speech Head of the Department of Speech-1973
Fred William Hallberg-B.A., M.A., Ph.D., University of Minnesota Associate Professor of Philosophy-1967(1972)
Gaylon L. Halverson-B.A., Luther College; M.A., University of Northern Iowa; D.B.A, Indiana University; C.P.A. Professor of Accounting-1963 (1972)
Albert Charles Haman-B.A., University of Iowa; M.A.T., Michigan State University Associate Professor of Biology-1961 (1972)
Elbert W. Hamilton-B.A., Tarkio College; M.A., Ph.D., University of Iowa Professor of Mathematics Head of the Department of Mathematics-1949 (1963)
Nellie D. Hampton-B.S., Central Missouri State University; M.A., University of Iowa; Ph.D., University of Wisconsin Professor of Education-1945 (1959)
James L. Handorf-B.A., University of Northern lowa; M.A., Colorado State College; Ph.D., University of Northern Colorado Associate Professor of Business Education-1966 (1973)
Glenn L. Hansen-B.A., M.A., University of Northern Iowa; Ed.D., Texas A\&M University Assistant Professor of Business Education Field Instructor in Adult Distributive Education-1964 (1970)
Jon Edward Hansen-B.A., M.A., University of Northern Iowa Associate Professor of Music Administrative Assistant-1969 (1974)
Kathryn Ann Hansen-B.A., M.A., University of Northern Iowa Instructor in Spanish-1975
Thomas W. Hansmeier-B.A., M.A., University of Northern Iowa; Ed.D., Michigan State University Professor of Education Vice-President for Student Services and Special Assistant to the President-1971
Donald L. Hanson-B.A., M.A., University of Northern Iowa; Ed.D., University of Wyoming Professor of Education Head of the Department of School Administration and Personnel Services-1966 (1973)
Robert W. Hanson-B.A., Bemidji State College; M.S., University of Minnesota; Ph.D., University of Iowa Professor of Chemistry and Science Education-1963 (1966)
Roger J. Hanson-B.S., Gustavus Adolphus College; M.A., Ph.D., University of Nebraska Professor of Physics Head of the Department of Physics- 1969
James N. Hantula-B.A., M.A., University of Michigan Associate Professor of Teaching: Social Studies-1965 (1975)
Robert R. Hardman-B.S., Maryland State College; M.S., Ed.D., Indiana University Professor and Director of the Educational Media Center-1970 (1974)
*Merrill R. Harlan-B.Mus., Arizona State University; M.Mus., D.Mus., Northwestern University Assistant Professor of Piano-1968 (1970)

[^9]E. Jeanne McLain Harms-B.A., M.A.E., Ed.S., University of Northern Iowa; Ph.D., Ohio State University Associate Professor of Education-1967 (1973)
Corinne D. Harper-B.S., Kansas City Teachers College; M.Ed., Ed.D., University of Missouri Professor of Teaching-1947 (1956)
Gordon M. Harrington-B.E.E., Georgia Institute of Technology; Ph.D., Yale University Professor of Psychology-1963 (1968)
Judith E. Finkel Harrington-B.S., Boston University; M.A., University of Iowa Assistant Professor of Speech Pathology-1965 (1969)
Edwin H. Harris-B.A., M.A., University of Northern Iowa Assistant Professor of Art Administrative Assistant, Department of Art-1970 (1971)
Virginia L. Hash-B.S., Iowa State University; M.A., Ed.S., University of Northern Iowa Assistant Professor of Education-1966 (1968)
Catherine W. Hatcher-B.A., M.S. in Ed., Purdue University Assistant Professor of Education-1975
Shirley E. Haupt-B.A.E., Art Institute of Chicago; M.F.A., University of Iowa Associate Professor of Art-1966 (1974)
Richard R. Hawkes-B.S., M.S., University of Nebraska at Omaha; Ph.D., University of Nebraska at Lincoln Assistant Professor of Teachng Coordinator of Student Teaching-1969 (1972)
Don Carlton Hawley-B.A.Ed., Kearney State College; M.A., Ph.D., University of Iowa Professor of Spanish-1966 (1970)
Sharon K. Hawn-B.A., University of Northern Iowa; M.A., Colorado State University Instructor in Teaching: Physical Education-1974
Harriet M. Healy-B.A., The College of St. Catherine; M.A., University of Northern Iowa Instructor in Education-1973
Marvin O. Heller-B.S., M.E., University of Nebraska; Ed.D., University of Northern Colorado Associate Professor of Education-1970 (1974)
Louis R. Hellwig-B.A., M.A., New Mexico State University; Ph.D., University of Missouri Assistant Professor of Psychology-1964 (1965)
Virginia G. Henderson-B.A., Louisiana State University; M.A., University of Kentucky Instructor in Art-1972
Glen F. Henry-B.S.Ed., M.S.Ed., Nebraska State College at Chadron Associate Professor of Physical Education for Men-1966 (1974)
Clifford H. Herrold-B.A., Central State College, Oklahoma; M.A., Colorado State College; Ed.D., Stanford University Professor of Art-1947 (1962)
James Joseph Hiduke-B.A., St. Joseph's College, Indiana; M.A., Marquette University Assistant Professor of English-1967 (1973)
Clifford L. Highnam-B.A., Western Washington State College; M.S.P.A., University of Washington; Ph.D., Bowling Green State University Assistant Professor of Speech Pathology-1975
Leah F. Hiland-B.S., M.A.L.S., Ph.D., Indiana University Assistant Professor of Library Science-1972
Thomas W. Hill-B.S., University of Wisconsin Assistant Professor of Anthropology-1972
Gerald G. Hodges-A.B., University of North Carolina; M.A., University of Florida; M.L.S., Rutgers-The State University Assistant Professor of Library Science-1975
Darrel B. Hoff-B.A., Luther College; M.A., University of Northern Iowa; Ph.D., University of Iowa Professor of Earth Science-1964 (1975)
Randy A. Hogancamp-B.A., University of Northern Iowa; M.M., Northwestern University Instructor in Music-1972 (1975)
Wesley Dean Hogeland-B.A., University of Northern Iowa; M.A., University of Iowa Assistant Professor of Physical Education for Men-1967
Telford F. Hollman -Ph.B., J.D., University of Chicago; L.L.M., John Marshall Law School; M.B.A., DePaul University Professor of General Business-1968 (1975)
Albert John Holstad-B.S., Northern State College; South Dakota; M.Mus., D.Mus., Northwestern University
Associate Professor of Piano Administrative Assistant, Department of Music-1963 (1973)

Karl M. Holvik-B.A., Concordia College, Minnesota; M.A., Eastman School of Music; Ph.D., University of Iowa
Professor of Woodwind Instruments—1947 (1965)
Martha T. Holvik-B.S.Ed., University of Minnesota; M.A., University of Northern Iowa Instructor In Music-1968
John T. Holzaepfel-B.F.A., Kansas City Art Institute; M.A., University of Michigan at Ann Arbor Instructor In Art-1973
James A. Hoobler-B.A., M.A., University of Northern Iowa Assistant Professor of Education-1967 (1971)
Joyce J. Hornby-B.A., Northwestern College, Minneapolis; B.A., University of Minnesota, Duluth; M.A., University of Northern Colorado Assistant Professor of Teaching: Elementary Education-1973
Max M. Hosier-B.A., Nebraska State Teachers College, Peru; M.A., Ed.D., University of Northern Colorado, Greeley Professor of Education and Psychology-1951 (1966)
Grace Ann Hovet-B.A., College of St. Catherine; M.A., University of Minnesota Assistant Professor of English-1969 (1973)
Theodore R. Hovet-B.S., North Dakota State College; M.A., University of Minnesota; M.Phil., Ph.D., University of Kansas Associate Professor of English-1969 (1973)
Donald F. Howard-B.A., University of Northern Iowa; M.A., Ph.D., University of lowa Professor of History-1947 (1957)
Hsiao Hua Hsu-B.S., National Taiwan University; M.S., Ph.D., Indiana University Associate Professor of Physics-1968 (1974)
*Sin-Tao Hsue-B.S., M.S., Ph.D.. Indiana University Associate Professor of Physics-1967 (1973)
Genevieve Erlene Hubly-B.A., Rice University; M.A., M.F.A., University of Iowa Assistant Professor of English-1967 (1970)
Sharon Huddleston-B.S., M.A.E., Stephen F. Austin State University Instructor in Physical Education for women-1973
Katherine S. Humphrey-B.S.C., M.A., University of Iowa Associate Professor of Business Education-1947 (1962)
George E. Immerzeel-B.A., M.A., University of Northern Iowa Professor of Teaching: Mathematics-1960 (1973)
Mary Ann Jackson-B.S., M.S., University of Arkansas Assistant Professor of Teaching: Home Economics-1953 (1957)
Edward Jamosky-B.A., M.A. in Russian, M.A. in Library Science, University of Wisconsin Assistant Professor of Russian-1965
Allen A. Jedlicka-B.A., San Diego State College; Ph.D., Northwestern University Assistant Professor of Management-1973
John H. Jennett-B.S., M.A., Drake University Associate Professor of Physical Education for Men-1962 (1971)
*Dennis J. Jennings-A.B., M.A., University of California, Los Angeles Assistant Professor of Art-1967 (1972)
Marvin D. Jensen-B.A., Midland Lutheran College; M.A., University of Kansas Assistant Professor of Speech-1966 (1969)
Verner Jensen-B.S., University of Nebraska; M.S., Iowa State University Professor of Physics-1956 (1974)
M. Lathon Jernigan-B.Mus., M.Mus., Southern Methodist University Assistant Professor of Music (Theory) - 1971
Ross. M. Jewell-B.A., Wabash College; M.A., Indiana University Associate Professor of English-1951 (1969)
Delroy E. Johnson-B.S., St. Cloud State College; M.A., University of Northern lowa Assistant Professor of Biology-1967 (1971)
John Keith Johnson-A.B., North Texas State University; M.Mus., University of Illinois Associate Professor of Brass Instruments-1966 (1974)
Robert H. Johnson-B.A., University of Northern Iowa Instructor in Teaching: School Administration-1974
Valdon L. Johnson-B.A., M.A., University of Northern Iowa Assistant Professor of English and Linguistics-1968
Carol Ann Jokumsen-B.A., M.A., University of Northern Iowa Instructor in Spanish-1975
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Howard V. Jones. Jr.-B.A., M.A., Ph.D., Harvard University
Professor of History-1954 (1964)
James Marc Jones-B.A., M.S., Ph.D., University of Oklahoma Associate Professor of Psychology-1969 (1975)
E. Susan Jorgensen-B.A., M.A., University of Northern Iowa Assistant Professor of Teaching: Special Education-1974
Elaine Bush Kalmar-B.A., M.A., Ph.D., University of New Mexico Assistant Professor of English-1971
Denise Ann Kane-B.A., M.A., University of Northern Iowa Instructor in German-1975
Robert M. Kaplan-B.A., University of British Columbia; M.B.A., Harvard University; Ph.D., Michigan State University
Associate Professor of Business-1973
Leonard J. Keefe-B.Ed., Illinois State University; M.A., Northern Colorado University Professor of Marketing-1956 (1960)
Thomas W. Keefe III-B.A., University of Colorado; M.S.W., University of Denver; D.S.W., University of Utah
Assistant Professor of Social Work-1973
James L. Kelley-B.S., M.S., Mankato State College Assistant Professor of Teaching: Science-1969 (1973)
David E. Kennedy-B.Mus., M.Mus., Eastman School of Music, University of Rochester; Ph.D., University of Iowa Professor of Music (Brass Instruments and Theory)-1948 (1968)
Dennis W. Kettner-B.A., M.A., University of Northern lowa Instructor in Teaching: Mathematics-1975
Jack F. Kımball-B.A., University of Kansas City; M.A., Syracuse University; Ed.D., Columbia University Associate Professor of Education-1967
Karen Mae King-B.S., Illinois State University; M.A., Baylor University Instructor in Speech-1971
Aurelia L. Prior Klink-B.A., M.A., University of Northern Iowa Assistant Professor (Field) of Adult Office Education-1966 (1969)
Jerome F. Klinkowitz-B.A., M.A., Marquette University; Ph.D., University of Wisconsin Associate Professor of English-1972
Howard T. Knutson-B.A., Luther College; M.A., Ed.D., University of Wyoming Professor of Education Director of Teacher Education Dean of the College of Education-1953 (1968)
Fritz Hans Könı-B.A., University of Heidelburg; Candidatus Magisterii, University of Oslo, Norway; M.A., Ph.D., University of Iowa Head of the Department of Foreign Languages-1967 (1975)
Jürgen Koppensteiner-Ph.D., University of Graz, Austria Associate Professor of German-1968 (1972)
Elmer John Kortemeyer. Jr.-B.S., M.A., University of Wyoming Assistant Professor of Physical Education-1965 (1968)
Robert E. Kramer-Ph.B., M.A., University of North Dakota Assistant Professor of Sociology-1965 (1970)
Marilou De Wall Kratzenstein-B.A., Calvin College; M.A., Ohio State University Associate Professor of Music (Organ)-1975
Laurence H. Krause-B.S., Washington University; M.A.Ed., American University-Washington, D.C. Instructor in Business-1974
Marian E. Krogmann-B.S., South Dakota State University; M.A., Ph.D., University of Iowa Associate Professor of Political Science-1967 (1970)
Robert Walter Krueger II-B.Mus.Ed., M.Mus., Northwestern University Adjunct Instructor in Music-1975
Raymond W. Kuehl-B.S., Upper Iowa College; M.A., University of Iowa; Ed.S., Drake University; Ph.D., University of Iowa
Associate Professor of Teaching Coordinator of Student Field Experiences-1966 (1971)
Roger A. Kueter-B.A., Loras College; M.A., Ed.D., Indiana University Associate Professor of Education
Assistant to the Dean of the College of Education-1970 (1974)
Loretta S. Kuse-B.S., Wisconsin State University at Stevens Point; M.A., Ph.D., University of Iowa Assistant Professor of Education-1972

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Elaine E. McDavitt-B.S., M.A., Northwestern University; Ph.D., University of Michigan Professor of Speech-1947 (1964)
*Wilhelmina D. McFee-B.S., Boston University; M.S., Smith College; Ph.D., The Ohio State University Professor of Physical Education for Women Head of the Department of Physical Education for Women-1972
Mary Lou McGrew-B.A., University of Northern Iowa; M.A., University of Iowa Assistant Professor of Library Science-1970 (1975)
Kent A. McIntyre-B.A., University of Iowa; M.A., University of Denver Associate Professor of Teaching: Educational Media-1968 (1974)
Keith F. McKean-A.B., Williams College; M.A., University of Chicago; Ph.D., University of Michigan Professor of English-1968
*Helen Gray McKinsey-B.S., M.S., Purdue University Assistant Professor of Home Economics-1968
David R. Maberry-B.A., M.A., Ph.D., North Texas State University Assistant Professor of Speech-1975
Joseph J. Marchesant-B.A., Fordham University; M.S., Brooklyn College: M.Ed., Temple University Assistant Professor and Coordinator of Television Services-Educational Media Center-1972
William O. Maricle-B.E., University of Southern Illinois; M.A., University of Illinois; Ed.D., University of Colorado Associate Professor of Teaching Coordinator of Student Teaching-1949 (1970)
Jeannette J. Marsh-B.S., Mankato State College; M.S., University of New Mexico Assistant Professor of Physical Education for Women-1975
Elizabeth Ann Martin--B.A., Wartburg College; M.A., University of Minnesota Associate Professor of Library Science Head of the Department of Library Science-1962 (1972)
Patricia Martin-B.A., St. Mary College, Notre Dame; M.A., Northern Illinois University Instructor in Home Economics-1975
Charles D. Matheson-B.Mus., M.Mus., University of Michigan Professor of Voice-1955 (1973)
A. Marleta Matheson-B.M.Ed., Simpson College, Iowa; M.Mus., University of Michigan Instructor in Music and Music Staff Accompanist-1964 (1973)
R. Jane Mauck-B.Mus., M.Mus., Drake University Assistant Professor of Voice-1946 (1956)
Juone L. Maxwell-B.A., University of Northern Iowa; M. Mus., American Conservatory of Music Associate Professor of Piano-1940 (1968)
Peter M. Mazula-B.S., State University of New York, Cortland; M.A., Ed.D., Teachers College, Columbia University Professor of Teaching: Safety Education-1949 (1973)
*Josephine Megivern-B.A., M.A., University of Northern Iowa Assistant Professor of Home Economics
Herbert G. Meinert-B.A., Brooklyn College; M.A., University of Iowa Assistant Professor of Radio-Television-1974 (1975)
Jane C. Mertesdorf-B.S., Mankato State College; M.A., Ball State University Assistant Professor of Physical Education for Women-1969 (1975)
William K. Metcalfe-B.S., M.A., Washington University, St. Louis; Ph.D., Syracuse University Professor of Political Science-1961 (1969)
Arthur C. Meyers III-B.S., M.S., Ph.D., St. Louis University Assistant Professor of Physics-1975
Peter S. Michaelides-B.Mus., Baldwin-Wallace College Conservatory of Music, Ohio; M.Mus., Oberlin College; D.M.A., University of Southern California Associate Professor of Theory-1965 (1970)
Carol T. Michaelis-B.S., M.Ed., University of Utah Assistant Professor of Education-1975
Caryl A. Middleton-B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa Professor of Teaching Coordinator of Student Teaching-1949 (1970)
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Michael H. Millar-B.A., Harvard University; M.S., Ph.D., University of Chicago Professor of Mathematics-1962 (1974)
Janeen E. Miller-B.A., M.A., University of Northern Iowa Instructor in Education-1975
Ronald Dean Moehlis-B.A., University of Northern Iowa; M.A., University of Ilinois Assistant Professor of Mathematics-1965 (1970)
Dorothy L. Moon-B.Ed., Northern Illinois University; M.A., Northwestern University Associate Professor of Physical Education for Women-1946 (1968)
Beverly A. Moore-B.A., Cornell College Instructor in Teaching: Elementary Education-1975
David L. Morgan-B.A., Swarthmore College; M.A., Washington University Assistant Professor of Philosophy-1969
Janice M. Morgan-B.S.E., M.S.E., University of Missouri, Columbia; Ph.D., Iowa State University Associate Professor of Home Economics-1972 (1975)
Robert E. Morin-B.S., M.S., Northwestern University; Ph.D., University of Wisconsin Professor of Psychology
Director, Center for Business and Behavioral Research Dean of the College of Business and Behavioral Sciences-1972
JoEllen Marie Mueller-B.A., M.A., University of Northern Iowa Instructor in Spanish-1975
Raul Munoz-B.A., M.A. in Sociology, University of Nebraska; M.A. in Spanish Literature, Ph.D., Michigan State University Associate Professor of Spanish-1963 (1974)
Andrew S. Musel-B.A., University of Northern Iowa Instructor in Teaching: Music-1975
Dale A. Myers-B.A., Hendrix College; M.A., Ph.D., University of Florida Assistant Professor of English-1975
Hyo Chul Myung-B.S., M.S., Seoul National University, Korea; Ph.D., Michigan State University Associate Professor of Mathematics-1970 (1974)
Clinton Nelson-B.A., Midland College; M.A., University of Nebraska Assistant Professor of Speech-1967
Glenn T. Nelson-B.Ed., Keene State College, New Hampshire; M.S.T., University of New Hampshire; Ph.D., University of Iowa Assistant Professor of Mathematics-1974 (1975)
Phillip James Nelson-B.S., Augustanta College; M.A., University of Nebraska at Omaha Assistant Professor of Teaching: Social Studies-1969 (1974)
Dale R. Neuman-B.S., University of Wisconsin; M.A., University of Minnesota Assistant Professor of Speech-1963 (1969)
Richard S. Newell-B.A., M.A., University of Washington; Ph.D., University of Pennsylvania Professor of History-1967 (1974)
Lee H. Nicholas-B.S.B.A., University of Kansas; M.B.A./C.P.A., University of Tulsa Assistant Professor of Business-1974
Jessie Ree Nicholson-B.A., M.A., University of Northern Iowa Instructor in Spanish-1975
Lynn E. Nielsen-B.A., University of Iowa Instructor in Teaching: Elementary Education-1974
Ross A. Nielsen-B.A., Wartburg College: M.S., Ph.D., University of Iowa Professor of Teaching Head of the Department of Teaching-1947 (1962)
Basheer K. Nium-B.A., Augustana College, Illinois; M.A., Ph.D., Indiana University Professor of Geography Head of the Department of Geography-1962 (1972)
Virgil C. Noack-B.A., M.A., University of Northern Iowa Assistant Professor of Sociology-1967 (1970)
Samuel Nodarse-Doctorate in Social Sciences, Doctorate in Law, Universidad de la Habana, Cuba; Ph.D., University of Illinois, Urbana Professor of Spanish-1964 (1975)
Carol A. Nogy-B.A., California State College, Pennsylvania; M.Ed., University of Pittsburgh Associate Professor of Education-1975
Jon G. Norem-B.S., M.B.A., University of North Dakota; C.P.A. Assistant Professor of Accounting-1973
Willis P. Norton-B.A., M.A., Ball State University; Ph.D., Purdue University Assistant Professor of Industrial Technology-1973

University of Northern Iowa

Michael David Oates-A.B., Fairfield University; M.A.T., Assumption College; Ph.D., Georgetown University Professor of French-1967 (1975)
Earl Ockenga-B.S., Augustana College, South Dakota; M.S., University of South Dakota Assistant Professor of Teaching: Mathematics-1975
Andrew P. Odell-B.A., University of Iowa; Ph.D., University of Wisconsin, Madison Assistant Professor of Astronomy-1974
Karl. Edward Odwarka-Diplom, Akademie fuer Welthandel, Frankfurt, Federal Republic of Germany; A.B., M.A., Wayne State University; Ph.D., University of Michigan Associate Professor of German-1964 (1973)
${ }^{*} J_{A C K}$ E. Olds-B.S., M.S., University of Wisconsin at Milwaukee Adjunct Assistant Professor of Art Director of Iowa Arts Council, Des Moines-1966 (1967)
Dale Wilson Olson-B.A., Carleton College: Ph.D., University of Rochester Associate Professor of Physics-1968 (1973)
Alan R. Orr-B.A., Simpson College; M.S., Ph.D., Purdue University Associate Professor of Biology-1965 (1971)
Helen Ormsby-B.S., M.S.W., University of Utah Assistant Professor of Social Work-1975
Charlotre S. Oslund-B.S., North Dakota State University; M.A., Colorado State University Assistant Professor of Home Economics-1972
John H. Page. Jr.-B. of Design, University of Michigan; M.F.A., University of Iowa Professor of Art-1961 (1964)
Ananthanarayanan Parasuraman-B.Tech., Indian Institute of Technology, Madras, India; M.B.A., Indian Institute of Management , Ahmedabad, India; D.B.A., Indiana University Assistant Professor of Marketing-1975
Eugenia G. Parisho-B.A., University of Northern Iowa; M.A., University of Chicago Assistant Professor of Teaching: Elementary Edunation-1968
Henry H. Parker-B.A., St. Thomas College, Minnesota; M.A., University of Minnesota Assistant Professor of Latin-1965
Charles A. Patten-B.A., University of Northern Iowa; M.A., University of Oregon Associate Professor of Physical Education for Men-1964 (1972)
Robert L. Paulson-B.S., M.A., University of Iowa Associate Professor of Teaching: Educational Media-1953 (1963)
Barbara E. Pershing-B.S., Western Illinois University; M.A., University of Northern Colorado; Ph.D., Iowa State University Instructor in Home Economics-1974
Rex W. Pershing-B.S., Western Illinois University; M.A.Ed., University of Northern Iowa; Ed.D., University of Northern Colorado Associate Professor of Industrial Technology-1965 (1972)
Cecil K. Phillips-B.S., Southwest Missouri State College; M.Ed., Ed.D., University of Missouri Professor of Teaching Coordinator of Student Teaching-1948 (1962)
Warren E. Picklum-B.A., Colorado State University; M.S., Ph.D., Iowa State University Associate Professor of Biology-1957 (1974)
Carol L. Phillips-B.Sc., The Ohio State University; M.A.T., Washington State University Instructor in Physical Education for Women-1975
Douglas T. Pine-B.S., State University of New York at Oswego; M.A., Trenton State College; Ph.D., The Ohio State University Assistant Professor of Industrial Technology-1973
George R. Poage-B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa Professor of History-1954 (1965)
Paul J. Pobter-B.A., M.A., Ed.S., University of Northern Iowa Assistant Professor of Education-1967 (1970)
Albert A. Potter-B.A., Nebraska State Teachers College; M.A., University of lowa Associate Professor of Teaching: Science-1946 (1968)
Lois Shefte Potter-B.A., Yankton College; M.A., University of Iowa; Ph.D., University of Wisconsin Professor of Teaching: Speech Pathology-1950 (1972)
Robert Bruce Pratt-B.A.Ed., M.E., Eastern Washington State College; M.A., Ed.D., University of Colorado Associate Professor of Social Science-1970 (1973)
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## E. Robert Premo-A.B., A.M., University of Notre Dame; M.B.A., Marquette University

 Instructor in Business-1975James William Price-B.S.Ed., B.A., University of Missouri; M.A., University of Northern Iowa Assistant Professor of Teaching: Foreign Languages-1964 (1970)
Clarence W. Pries-B.A., Wartburg College: M.A., University of Iowa Assistant Professor of Teaching Coordinator of Student Teaching-1968
W. Dean Primrose-B.A., M.A., University of Northern Iowa Instructor in Teaching: Business Education-1973
*Jerrold E. Pritchard-B.A., M.A., California State University at Sacramento; D.Mus.A., University of Washington
Associate Professor of Music-1969 (1975)
Joseph Przychodzin-B.Ed., Southern Illinois University; M.A., University of Illinois; Ed.D., University of Missouri
Professor of Education-1947 (1968)
Jean T. Pumroy-B.S.C., M.A., University of Iowa Visiting Assistant Professor of Business-1974
Charles E. Quirk-B.A., Carroll College, Wisconsin; B.D., McCormick Theological Seminary; Ph.D., University of Iowa Associate Professor of History-1963 (1969)
Lora Lee Rackstraw-B.A., Grinnell College; M.F.A., University of Iowa Associate Professor of English-1966 (1975)
Ned H. Ratekin-B.A., Parsons College; M.A., Ph.D., University of Iowa Professor of Education and Psychology-1965 (1971)
*Edward C. Rathmell-B.A., Central College; M.A., Western Washington State College; Ph.D., University of Michigan Assistant Professor of Mathematics-1972
Jack Charles Reed-B.A., M.A., University of Northern Iowa Associate Professor of Business Education Teacher Educator in Office Education-1965 (1969)
Thomas J. Remington-B.A., Regis College, Colorado; M.A., Ph.D., Kansas State University Assistant Professor of English-1970
Dennis L. Remmert-B.A., M.A., University of Northern Iowa Assistant Professor of Physical Education for Men-1964 (1969)
Basil. J. Reppas-B.A., Athens University, Greece; M.A., American University of Beirut, Lebanon; Ph.D., University of Iowa
Associate Professor of Education-1961 (1965)
Thomas L. Reuschling-B.A., Hiram College; M.B.A., Kent State University; D.B.A., University of Colorado Associate Professor of Marketing Head of the School of Business- 1973
Erwin W. Richter-B.S., Northern Michigan University; M.A., University of Northern Iowa; Ph.D., University of lowa Associate Professor of Chemistry-1963 (1972)
Paul Edward Rider-B.A., Drake University; M.S., Iowa State University; Ph.D., Kansas State University Associate Professor of Chemistry-1969 (1973)
Ferdinand C. Riechmann-B.A., M.A., University of Iowa Associate Professor of Teaching: Social Studies-1960 (1971)
Dixon L. Rugg-B.A., Marietta College, Ohio; M.S., University of Michigan Associate Professor of Biology-1958 (1970).
Glenda G. Rlley-B.A., Western Reserve University; M.A., Miami University, Ohio; Ph.D., Ohio State University
Associate Professor of History-1969 (1972)
James B. Roberson-B.S., Middle Tennessee State College; M.A., George Peabody College for Teachers Associate Professor of Teaching Coordinator of Student Teaching-1964 (1971)
Ronald Edward Roberts-B.A., Drake University; M.A., Ph.D., Louisiana State University Associate Professor of Sociology-1969 (1972)
James B. Robinson-B.A., Wabash College; M.A., University of Wisconsin at Madison Assistant Professor of Philosophy and Religion-1971
*Michael O. Rod-B.A., Luther College; M.A., University of Northern Iowa; C.P.A. Instructor in Accounting-1972
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Bruce G. Rogers-B.S., M.A., Arizona State University; Ph.D., Michigan State University Associate Professor of Education-1975
Timothy E. Rooney-B.S., St. Louis University; M.S., University of South Florida Assistant Professor of Speech Pathology-1973
Robert L. Ross-B.A., University of Northern Iowa; M.A., Columbia University; Ph.D., Michigan State University Professor of Political Science
Head of the Department of Political Science-1962 (1971)
Ronald D. Ross-B.A., Marshall University, West Virginia; M.Mus., Indiana University; Ph.D., University of Cincinnati
Associate Professor of Music
Head of the Department of Music-1975
Betts Ann Roth-B.S., George Peabody College for Teachers; M.A., Columbia University
Associate Professor of Teaching: Early Childhood Education-1951 (1965)
Julia J. Rozendaal-B.A., M.A., Ed.S., University of Northern Iowa
Assistant Professor of Education-1966 (1967)
Alvin E. Rudisill-B.S., Moorhead State College; M.S., University of North Dakota; Ed.D., University of Northern Colorado
Professor of Industrial Technology
Head of the Department of Industrial Arts and Technology-1971
Robert L. Rule-B.S., M.S., Iowa State University Instructor in Mathematics-1966
Edward Rutkowski-B.S., Marquette University; M.A., Ph.D., Michigan State University Professor of Education-1963 (1970)
Thomas G. Ryan-B.S.C., M.A., University of Iowa Assistant Professor of History-1960 (1963)
Phyluls Ann Sacks-B.A., Buena Vista College; M.A., University of Northern Iowa Instructor in German-1975
Wilfred D. Samuels-B.A., University of California at Riverside; M.A., University of Iowa Assistant Professor of English - 1975
Roy E. Sandstrom-B.A., Williams College; M.A., Ph.D., State University of New York at Buffalo Assistant Professor of History-1969
Rex E. Schmid-B.S., University of Northern Arizona; M.Ed., Ed.D., University of Virginia Assistant Professor of Education-1973
Otis Rhea Schmidt-B.J., M.J., University of Texas, Austin; M.A., Sam Houston State College Assistant Professor of English-1965 (1968)
Mary Margaret Schmitt-B.A., University of Northern Iowa; M.Ed., University of Minnesota Associate Professor of Teaching: Art-1946 (1974)
James O. Schnur-B.S., M.S., State University College, Fredonia, New York; Ed.D., State University of New York at Buffalo
Professor of Education
Head of the Department of Curriculum and Instruction-1972
Charles B. Scholz-B.S.Ed., M.A., Northern Illinois University Instructor in Radio-Television-1969
Marshall Schools-B.S., Mary Washington College; M.A., George Peabody College for Teachers Associate Professor of Teaching: Physical Education-1949 (1967)
Augusta L. Schurrer-B.A., Hunter College; M.A., Ph.D., University of Wisconsin Professor of Mathematics-1950 (1963)
Lynn C. Schwandt-B.A., Coe College; M.A., University of Northern Iowa; M.A., Stanford University Associate Professor of Teaching: Mathematics-1964 (1973)
Jane K. Sherwin Schwartz-A.B., Rockford College; M.A., Middlebury College; Ph.D., University of Michigan
Professor of French-1962 (1972)
Ralph J. Schwartz-B.S., Northwestern University; M.A., Marquette University; Ph.D., Purdue University Associate Professor of Speech Pathology and Audiology-1963 (1968)
Lyle E. Schwarzenbach-B.A., M.A., University of Northern Iowa; Ed.D., University of Wyoming Assistant Professor of Physical Education for Men-1969 (1972)
Ralph S. Scott-B.S., Luther College; M.S.W., University of Wisconsin; Ph.D., University of Chicago Professor of Education and Psychology
Director of the Educational Clinic-1965 (1968)
Donald A. Scovel-B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa Professor of Teaching: Social Studies-1961 (1974)

Ruth Sevy-B.S., Central Missouri State University; A.M., University of Northern Colorado Associate Professor of Physical Education-1967 (1969)
Satish Sharma-B.A., M.S., Punjab University, Chandigarh, India; Ph.D., Ohio State University Assistant Professor of Sociology-1974 (1975)
Boaz Sharon-B.Mus., University of Texas at Austin; M.Mus., Boston University Assistant Professor of Piano-1975
Marjorie E. Shaw-B.A., M.A., University of Northern Iowa Instructor in Education-1975
Donald E. Shepardson-B.S., Eastern Illinois University; M.A., Ph.D., University of Illinois Associate Professor of History-1970 (1974)
Stanley B. Sheriff-B.S., M.A., California State Polytechnic College Associate Professor of Physical Education for Men Director of Athletics-1958 (1971)
Allan Shickman-B.A., Washington University; M.A., University of Iowa Instructor in Art-1970
Aubrey Courtney Shives-A.B., Duke University; M.B.A., University of Colorado Visiting Assistant Professor of Business-1975
Vera Jo Siddens-B.A., M.A., University of Northern lowa Assistant Professor of Art-1968 (1971)
Karen V. Silverson-B.A., University of Northern lowa Instructor in Teaching: Social Studies-1974
Ina Mae Brown Silvey-B.S. in Ed., Central Missouri State College; M.A., University of Northern Iowa Associate Professor of Mathematics-1954 (1972)
Robert John Simpson-B.A., Houghton College; M.S., Ph.D., University of Illinois Associate Professor of Biology-1965 (1968)
James C. Skaine-B.A., Sioux Falls College; M.A., University of South Dakota Assistant Professor of Speech-1965
Kenneth C. Slavett-B.A., University of California at Santa Barbara; M.A., University of Connecticut Instructor in Music-1973
David T. Smalley-B.Mus.. M.Mus., University of Michigan Assistant Professor of Voice-1964 (1969)
Audrey L. Smith-B.A., Kentucky Wesleyan College; M.A., Northwestern University; M.A.E., Ed.D., Ball State University Assistant Professor of Education-1973
Daryl D. Smith-B.A., University of Iowa; M.N.S., University of South Dakota; Ph.D., University of Iowa Associate Professor of Biology-1967 (1971)
Francis E. Smith-B.A., University of Massachusetts; M.A., Ph.D., University of Iowa Professor of English-1950 (1963)
John Kenneth Smith-B.S., M.A., Ph.D., University of Wisconsin Assistant Professor of Education-1971 (1972)
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## Glossary

## TERMS FREQUENTLY USED AT THE UNIVERSITY OF NORTHERN IOWA

| Adviser, Advisee- | Your adviser or counselor is the instructor assigned by the university to help you <br> with your problems. You are called his advisee. |
| :--- | :--- |
| Audit- |  |
| To take a course without credit (See Visitor). A course audited cannot be |  |
| counted for credit unless repeated on a credit basis. |  |



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| 99 | Anthropology | 12 | Accounting |
| 60 | Art | 13 | Marketing |
| 84 | Biology | 14 | Secretarial |
| 17 | Business Education | 15 | Management |
| 86 | Chemistry | 17 | Business Education |
| 87 | Earth Science | 18 | Office Administration |
| 92 | Economics | 20 | Educational Psychology |
| 24 | Educational Media | 21 | Elementary and Junior High |
| 20 | Educational Psychology | 22 | Special Education |
| 21 | Elementary and Junior High | 23 | Reading |
| 62 | English | 24 | Educational Media |
| 72 | French | 25 | Measurement and Research |
| 97 | Geography | 26 | Social Foundations |
| 74 | German | 27 | School Administration |
| 96 | History | 28 | Teaching |
| 31 | Home Economics | 29 | Student Personnel Services |
| 68 | Humanities | 30 | Safety Education |
| 00 | Individual Studies | 31 | Home Economics |
| 33 | Industrial Technology | 33 | Industrial Technology |
| 66 | Journalism | 35 | Library Science |
| 70 | Languages | 37 | Physical Education |
| 76 | Latin | 38 | Physical Education, Men |
| 35 | Library Science | 39 | Physical Education, Women |
| 63 | Linguistics | 40 | Psychology |
| 15 | Management | 45 | Social Work |
| 13 | Marketing | 50 | Speech |
| 80 | Mathematics | 51 | Speech Pathology |
| 25 | Measurement and Research | 52 | Music |
| 52 | Music | 54 | Music, Applied |
| 54 | Music, Applied | 57 | Music Methods |
| 59 | Music Literature | 58 | Music Theory |
| 57 | Music Methods | 59 | Music Literature |
| 58 | Music Theory | 60 | Art |
| 18 | Office Administration | 62 | English |
| 65 | Philosophy | 63 | Linguistics |
| 37 | Physical Education | 64 | Religion |
| 38 | Physical Education, Men | 65 | Philosophy |
| 39 | Physical Education. Women | 66 | Journalism |
| 88 | Physics | 68 | Humanities |
| 94 | Political Science | 70 | Languages |
| 40 | Psychology | 72 | French |
| 23 | Reading | 74 | German |
| 64 | Religion | 76 | Latin |
| 77 | Russian | 77 | Russian |
| 30 | Safety Education | 78 | Spanish |
| 27 | School Administration | 80 | Mathematics |
| 82 | Science | 82 | Science |
| 14 | Secretarial | 84 | Biology |
| 26 | Social Foundations | 86 | Chemistry |
| 90 | Social Science | 87 | Earth Science |
| 45 | Social Work | 88 | Physics |
| 98 | Sociology | 90 | Social Science |
| 78 | Spanish | 92 | Economics |
| 22 | Special Education | 94 | Political Science |
| 50 | Speech | 96 | History |
| 51 | Speech Pathology | 97 | Geography |
| 29 | Student Personnel Services | 98 | Sociology |
| 28 | Teaching | 99 | Anthropology |

ALPHABETIC ORDER
12 Accounting
99 Anthropology
Art
17 Business Education
86 Chemistry
87 Earth Science
24 Educational Media
20 Educational Psychology
Elementary and Junior High
nglish
97 Geography
74 German
96 History
Home Economics
00 Individual Studies
33 Industrial Technology
Journalism
anguages
35 Library Science
63 Linguistics
15 Management
13 Marketing
Mathematics

52 Music
54 Music, Applied
Music Literature

58 Music Theory
18 Office Administration
65 Philosophy
37 Physical Education
38 Physical Education, Men
88 Physics
94 Political Science
Psychology
Realigio
Russian
30 Safety Education
27 School Administration
82 Science
Secretaria
ndations
Science
. Sociol Work
78 Spanish
22 Special Education
Speec
29 Student Personnel Services
28 Teaching

## CODE NUMBER ORDER

Individual Studies
Accounting
Marketing
Management
Business Education
Office Administration
Educational Psychology
Elementary and Junior High
Special Education
Reading
Measurement and Research
Social Foundations
School Administration
Teaching
Safety Education
Home Economics
Industrial Technology
Physical Education
Physical Education, Men
Physical Education, Women
ology
ork
Speech Pathology
Music
Music, Applied
Music Methods
Music Theory
Music Literature
Art
Linguistics
Religion
Philosophy
malism
Languages
French
German
Latin
Russian
Spanish
Science
Biology
Earth Science
Physics
Social Science
Economics
Political Science
story
Sociology
Anthropology

This University of Northern Iowa BULLETIN is a general catalog of information regarding fees, curricula, and related policies and procedures. Every effort has been made to make the bulletin accurate as of the date of publication; however, all policies, procedures, fees and charges are subject to change at any time by appropriate action of the faculty, the university administration, or the State Board of Regents.


## SUPPLEMENT I

UNIVERSITY OF NORTHERN IOWA BULLETIN<br>Cedar Falls, Iowa

Vol. LXXVII, No. 1

This supplement amends appropriate sections of the 1976-78 Catalog Bulletin.

# S UPPLEMENT <br> UNIVERSITY OF NORTHERN IOWA BULLETIN 

Cedar Falls, Iowa<br>This supplement amends appropriate sections of the 1976-78 Catalog Bulletin.

August 15, 1976

Add to first paragraph of statement on DIVISION OF EXTENSION AND CONTINUING EDUCATION:
"The Continuing Education Unit is also used, and details of this program are available in the division office."
Revise Item 7 (last line, bottom of page) to read:
"7. Students enrolled during a fall or a spring semester for four (4) hours, or less, pay resident fees.

COMMON PROFESSIONAL SEQUENCE (restatement of sequence -- requested by the Department of Educational Psychology and Foundations)
--Change the order of the courses to be taken in Phase II and Phase III of the sequence which is required of all students in teacher education programs, and delete the designations "First semester," "Second semester," and "Third semester." to read:

Phase I (remains as printed on page 68 of the 1976-78 Catalog)
Phase II
20:040 Nature and Conditions of Learning . . . . . . . . . . 3 hrs.
20:050 Classroom Evaluation Instruments . . . . . . . . . . 2 hrs.
20:018 Teacher as Change Agent . . . . . . . . . . . . . . 1 hr.
Phase I/I
26:020 Educational Purposes and Practices . . . . . . . . . 2 hrs.
26:030 The Community and the Curriculum . . . . . . . . . 2 hrs.
(All other statements and hours remain the same.)

Following are curriculum proposals listed alphabetically by colleges.

## COLLEGE OF BUSINESS AND BEHAVIORAL SCIENCES

BUSINESS, School of
MANAGEMENT MAJOR (restatement of emphases under the major)
Production Management emphasis: delete 15:170, and add 15:181
Financial Management emphasis: delete 15:170, and add 15:155
Organizational Management emphasis: delete 15:170 (no additions)
(All other requirements and program hours remain the same.)

| 12:030 | Add prerequisite: "sophomore standing." |
| :---: | :---: |
| 12:230) |  |
| 23:240) | Add prerequisite: "consent of MBA adviser." |
| 12:262) |  |
| 13:040 | Change course number to 13:152 (Principles of Marketing) |
| 13:140g | Change prerequisite from 13:040 to 13:154. |
| 13:141g | Add prerequisite: 13:158. |
| 13:147g | Add prerequisite: 13:154 |
| 13:152 | Change course number from 13:040 to 13:152 (Principles of Marketing). |
| 13:153g | Add prerequisite: 13:152 |
| 13:154 | Add ' g ' ${ }^{\text {and add prerequisite: 13:152. }}$ |
| 13:155g | Add prerequisite: 13:152. |
| 13:156 | Add ' g " and prerequisite: 13:152. |
| 13:157g | Add prerequisite: 13:152. |
| 13:158 | Add " g " and prerequisite: 13:152. |

13:162g Add prerequisite: 13:154.
13:164g Add prerequisite: 13:158.
13:251 Add prerequisite: 13:263 and consent of MBA adviser.
13:257 Add prerequisite: "consent of MBA adviser."
13:263 Add prerequisite: "consent of MBA adviser."
15:010 Change title and description. Title from "Development and Structure of American Industry" 'to Introduction to Business. Description: Role of business in United States and world. Examines social, legal, and economic variables affecting business operations; includes functions of accounting, finance, management, marketin and production. No credit for student who has credit in or is concurrently taking 15:050 (15:153), 15:151, or 13:040 (13:152).

15:020 Change credit from 4 to 3 hrs ., and drop prerequisite. (Quantitative Methods for Business)

15:050 Change number and add prerequisite. (Fundamentals of Management) Change number to 15:153. Add prerequisite: 15:070.

15:080 Change course number from 15:167g to 15:080 (Basic Computer Concepts). Add prerequisite: 15:020.

15:100 Change course title from "Social Forces and the Law" to Introduction to Law and the Legal System.

15:153 Change course number from 15:050 (Fundamentals of Management) and add prerequisite: 15:070.

15:155g New course. Advanced Financial Management -- 3 hrs.
Teaches improved financial-decision-making skills through cases and readings across a broad series of financial topics. Prerequisite: 15:151.

15:165g Add prerequisite: 15:153.
15:167g Change course number and add prerequisite. (Basic Computer Concepts) Change number to 15:080. Prerequisite: 15:020.


## BUSINESS EDUCATION \& OFFICE ADMINISTRATION

## 81 BUSINESS EDUCATION MAJOR-Teaching (restatement of major)

-to read:
Required: 12:030; 17:080; 18:070; 18:113; 18:119; 24:131; 92:053
18-19 hours
Required: one of the emphases listed below

|  | (minimum total) | $\ldots$ | 50 hours |
| :---: | :---: | :---: | :---: | :---: |
| Emphases under BUSINESS |  |  |  |
| emphases) to read: |  |  |  |

A. General Business --

Required: 12:031; 13:152; 14:051; 15:010; 17:190 (Accounting/Data Processing, Basic Business/Consumer Economics, and one in a skill area); $31: 177$ or 92:054; and two courses from 15:100, 15:101, 15:102.

Electives: A minimum of 10 hours taken from the following: $14: 012 ; 14: 047 ; 14: 050$; 14:053; 14:055; 14:151;14:158; 15:114; 15:080; 17:170; 17:190; 18:117.
(Total hours for this emphasis remain at 32-34 hours.)
B. Accounting Emphasis -

Required: 12:031; 12:129; 12:130; 14:012; 14:051; 17:190 (Accounting/Data Processing, Basic Business/Consumer Economics, and one methods in skill area);92:054; and 6 semester hours from other courses in accounting.

Electives: a total of 8 hours from business law, marketing, management, finance, statistics.
(All other statements and total hours, 36, remain the same.)
C. Secretarial Emphasis (change "electives") to read --

Electives: Total of 12 hours from: $12: 031 ; 14: 053 ; 14: 055 ; 14: 154 ; 15: 100 ; 15: 080 ;$ $15: 101 ; 15: 102 ; 17: 113 ; 17: 114 ; 17: 118 ; 17: 119 ; 17: 140 ; 17: 170 ; 17: 190 ; 18: 117$.
(All other statements and requirements, including total hours, remain unchanged. Total hours: 34.)
D. Distributive Education Emphasis(provides additional certification as teacher-coordinator):

Required: 13:152; 13:141; 13:158; 17:040; 17:112; 17:113; 17:114; 17:118; 17:119; 17:140; 17:190 (Distributive Educ. Methods I, II, and Micro-Teaching).

Electives: at least 6 hours from 13:142; 13:143, 15:153. 3,000 hours of work experience . . . etc.

Student teaching in distributive education or an approved substitute. Student must pass department typing equivalency examination.

Distributive Education majors should plan to participate in the activities of the UNI Collegiate D.E.C.A. Chapter.
E. Office Education Emphasis (provides additional certification as teacher-coordinator) --

Required: 14:012; 14:051; 14:060; 14:151; 14:152; 14:158; 17:113; 17:114; 17:118; 17:119;17:140; 17:190 (typewriting, shorthand, and micro-teaching); 17:112.

Students released from any business education requirements should elect courses from the following: 12:031, 14:053, 14:055, 14:154, 17:111, 18:117.

3,000 hours of work experience in office occupations . . . etc.
Student teaching in Office Education or an acceptable substitute.
Majors with this emphasis should plan to participate in the activities of the UNI Collegiate O.E.A. Chapter.

## BUSINESS EDUCATION MINOR--Teaching (restatement of minor)

Required: 12:030; 12:031; 14:051; 15:010; 17:080; 17:190 (typewriting); 17:190 (basic business/consumer economics or accounting/data processing); 18:113; 18:119; plus electives in Business and Business Fducation to total

24 hours
A student desiring a minor in Business Education must have the minor program approved by the Business Education adviser.
A minimum of 24 hours is required for the minor; however, additional hours may be necessary as at least two courses in a subject-matter area are ordinarily required for certification.

## OFFICE ADMINISTRATION MAJOR (restatement major)

Required: $12: 030 ; 12: 031 ; 14: 050 ; 15: 153 ; 18: 070 ; 18: 113 ;$ 18:117; 18:119;92:053

25 hours
Electives: 30 hours from the following areas and approved by the student's adviser:

1. Accounting (same)
2. Marketing: 13:152; 13:140; 13:154
3. Management: $15: 010 ; 15: 080 ; 15: 020 ; 15: 100 ; 15: 101 ; 15: 102$; $15: 105 ; 15: 107 ; 15: 151$; 15:165.
4. 6, and 7 - remain the same.
5. Secretarial: delete 14:050.

14:158g Change credit from 4 to 5 hrs . (Adv. Shorthand/Trans.)
17:080 Change course number from 17:180 to 17:080 (Principles of Bus. Educ.)
17:112g New Course. Coordination Techniques -- 2 hrs.
Responsibilities of cooperative vocational education teacher-coordinator in coordination theory and practice; role of coordination, on-the-job learning experiences, selection of training stations, developing training plans, placement of students on the job, and public relations activities.

17:180 Change course number from 17:180 to 17:080 (Princ. of Business Educ.)

84 17:290 Change credit from 2 to $\mathbf{2 - 3} \mathbf{h r s}$.
17:291 Change credit from 2 to $\mathbf{2 - 3}$ hrs.
17:292 Change credit from 2 to 2-3 hrs.
17:293 Change credit from 2 to $\mathbf{2 - 3}$ hrs.
17:294 Change credit from 2 to $\mathbf{2 - 3}$ hrs.
17:295 New Course. Improvement of Distributive Education Programs - 2-3 hrs.
Program administration, curriculum development, and learning strategies.
18:113g Change course title from "Office Communications" to Business Communications.

ECONOMICS -- no changes requested.

## GEOGRAPHY

97:112g Drop " g " (Landform Analysis)
97:130g Drop "g" (Cultural Geography)
97:140g Drop "g" (Historical Geography of the U.S.)
97:150g Drop "g" (Regional Geography)
97:161g New course. Field Studies in Geography -- 2-3 hrs.
Off-campus experience with preparatory and follow-up classroom study. See current Schedule of Classes for specific area to be studied, credit hours, and prerequisites. May be repeated in different geographical areas for a maximum of 6 hours.

97:170g Drop "g" (Political Geography)
97:182g Drop "g" and change title and description. Title from "Ecogeography" to Conservation and Management of Resources. Description: The use and management of natural resources, including studies of environmental issues. (prerequisites stand)

97:185g Drop " g " (Population Geography)
97:189g Drop " g " (Readings in Geography)
88 97:210 Change description and prerequisite. (Theoretical Geography) Description: Philosophy and major theories of modern geographical science. Prerequisite: 97:109 or consent of instructor.

## HISTORY

96:189 Change credit from 3 to $1-3$ hrs. (Readings in History)
96:192 Change credit from 3 to 1-3 hrs. (Junior-Senior Seminar)
96:280 Change credit from 3 to 1-3 hrs. (Seminar in History)
96:289 New listing of common number. Seminar in United States Historiography -. 3 hrs. Seminar on major schools of interpretation of the American past, and a specific examination of the historiographical development of selected topics in American history.

96:289 New listing of common number. Seminar in European Historiography -- 3 hrs . Readings and research seminar on the development of the Western tradition of critical historical scholarship and on the literature of selected topics, controversies, and problems in modern European history.

## HOME ECONOMICS

VOCATIONAL HOME ECONOMICS MAJOR--Teaching (restatement of major)
-Change first list of required courses to read:

> Required: $31: 010 ; 31: 015 ; 31: 035 ; 31: 037 ; 31: 038 ; 31: 060 ;$ $31: 062 ; 31: 065 ; 31: 070 ; 31: 110 ; 31: 150 ; 31: 177 ; 31: 181 ;$ $31: 182 ; 31: 190 \mathrm{l} . \operatorname{l.}$.
--increases total program hours from 57-60 hours to 59-62 hours.
(All other requirements and statements remain the same.)
HOME ECONOMICS MAJOR-TEACHING (Restatement of major)
-Change first list of required courses to read:
Required: $31: 010 ; 31: 015 ; 31: 030 ; 31: 035 ; 31: 038 ; 31: 060 ;$
$31: 062 ; 31: 065 ; 31: 070 ; 31: 110 ; 31: 150 ; 31: 177 ; 31: 190$ 36 hours
-increases total program hours from 42 to 44 hours.
(All other requirements and statements remain the same.)
HOME ECONOMICS IN BUSINESS--Food and Nutrition (restatement of major)
-Change third list of required courses to read:
Required: 12:030; 13:040; 15:153; and one course from
13:158, 13:154, 13:165, 13:147, 40:157; 50:138 . . . . . . 12 hours
(All other requirements, statements, and hours remain the same.)

HOME ECONOMI CS SUBJECT FIELD--Middle School/Jr. High Ed. Major
(restatement of subject field)
-Add 31:190 to list of required courses.
Total hours to read: 25 hours.
Add "course group heading" GENERAL HOME ECONOMICS and under this head list the following courses:

31:005 Introduction to Home Economics - 1 hr .
$31: 120 \mathrm{~g}$ Demonstration Techniques -- 2 hrs .
31:195 Pre-Professional Experience - 2-8 hrs.
31:198 Independent Study
31:284 Current Issues and Trends in Home Economics -- 3 hrs.
31:289 Seminar
31:290 Practicum (non-teaching) - 2-3 hrs.

Change course group heading from "Family Relationships and Child Development" to Family Relationships and Human Development.

Change course group heading from "Family Economics and Home Management" to Home Management, Family Economics, and Consumer Education.

31:030 Change description (Basic Nutrition). Delete "For non-majors."

31:250 Change title and description. Title from "Family Life and Sex Education Programs" to Family Life and Human Sexuality. Description to: Explores human sexuality over the life cycle and its relation to family life; includes current literature, films, and research findings. Relevant for family life and sex education in home and school. Prerequisite: $31: 152$ or equivalent; highly recommended to be preceded by 31:051, 31:055, 98:105.

31:251 New course. Human Ecology Through the Family Life Cycle -. 3 hrs.
Broad view of human development from infancy to old age; emphasis on interrelationships between individual, family, and society. Prerequisite: 31:152 or equivalent. Strongly recommend: 31:051, 31:055 or equivalent.

31:284 Change description to: "Examination of issues faced by home economists and current trends in the field." (Current Issues and Trends in Home Economics)

31:285 Add listing of Common Number. Readings in Home Economics -- 1-6 hrs. Readings in various areas according to student needs.

31:288 Change number and description. Change number from 31:297 to 31:288. Description: Various areas according to students' needs. (Problems in Home Economics Education -- 1-4 hrs.)

31:289 Add listing of Common Number. Seminar in Home Economics -- 1-3 hrs.
May be repeated for up to 9 hours of credit. Credit and topic to be given in Schedule of Classes.

31:290 Add listing of non-teaching practicum. Practicum -- 2-3 hrs.
(Non-teaching) Experience in various areas according to student needs. May be repeated for up to 8 hours of credit.

31:297 Change number and description. Number to $31: 288$. See new number for other change.

## POLITICAL SCIENCE

## 96 POLITICAL SCIENCE MAJOR-Teaching (restatement of major)

> -to read:


A minor is required in one of the following: History, sociology, economics, or geography.

## POLITICAL SCIENCE MAJOR (restatement of major)

-to read:


No minor is required.
POLITICAL SCIENCE MINOR -- Teaching and Liberal Arts
(division of minor into two separate minors and restatement of minor program)
-to read:
(cont'd on p 8)

POLITICAL SCIENCE MINOR


## POLITICAL SCIENCE MINOR --Teaching



97 94:135g Change title and description. Title from "Modern European Governments" to Modern European Democracies. Description: Political institutions, processes, and policies of Western European Democracies; emphasis on Great Britain, France, and West Germany.

94:144g Change title and description. Title from "International Organizations" to International Political Issues. Description: Selected contemporary international issues and the effectiveness of existing international organizations in dealing with these issues.

94:153g New course. Politics of Bureaucracy - 3 hrs.
Role of the administrative system in public policy process, interaction among agencies, interest groups, overhead control units, Congress, Courts, the political parties, mass media, and public opinion.

94:155g New course. Environmental Policy Making - 3-4 hrs.
Formulation and implementation of domestic environmental policies. Graduate student may enroll for only 3 hrs. credit. With advance permission of instructor, undergraduate student may enroll for total of 4 hours credit which requires contracting for completion of original research project.

94:163g New course. Political Thought of South Asia - 3 hrs.
Ancient and modern political theories of South Asian thinkers: landmarks of the Hindu, Buddhist, and Jain political traditions, their impact on social, political, and economic policies of the region; emergence of "Sarvodaya," and the Gandhian philosophy and the Indian communism.

94:165g Change description of "East Asian Politics" to read: Political structures and institutions of China and Japan with emphasis on the modernization process since the middle of the 19th century.

94:166g New course. Chinese Political Thought: From Taoism to Maoism -- 3 hrs. Political philosophy from Lao Tzu to Mao Tse-tung with emphasis on latter as representing a unique synthesis of cultural traditionalism, Marxism-Leninism and ideolical innovation.

94:167g Drop course. (Political Thought of South East Asia - 3 hrs .)
94:183g New course. Introduction to Comparative Politics -- 3 hrs.
Basic theoretical concepts in comparative politics for studying and understanding political systems.

94:211 Drop course. (Major Political Philosophers -- 2 hrs.)
94:213 Drop course. (Politics and Democracy -- 2 hrs.)
" Seminar in Comparative Politics - 3 hrs.
" Seminar in American Politics -- 3 hrs.
" Seminar in Political Thought and Theory - 3 hrs.

## PSYCHOLOGY

PSYCHOLOGY MAJOR - Teaching (restatement of major)
-Change "Electives in psychology" from 15 hours to . . . . . . . . . . . . . 21 hours
-Increase total hours from 33 hours to . . . . . . . . . . . . . . . . . . . . . . . . . . 39 hours
(All other requirements and statements remain the same.)
PSYCHOLOGY MAJOR (restatement of major)
-Change "electives in psychology" from 15 hours to . . . . . . . . 21 hours
--Increase total hours from 30 hours to . . . . . . . . . . . . . . 36 hours
(All other requirements and statements remain the same.)
PSYCHOLOGY MINOR - Teaching (restatement of minor)
--Change "elective" hours from 11 hours to . . . . . . . . . . . . . . . . . . . . . . . 12 hours
--Increase total hours from 20 to . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 21 hours
(All other requirements and statements remain the same.)
PSYCHOLOGY MINOR (restatement of minor)
--Change "electives in psychology" from 9 hours to . . . . . . . . . . . . . . . . 12 hours
--Increase total hours from 18 hours to . . . . . . . . . . . . . . . . . . . . . . . . . 21 hours
(All other requirements and statements remain the same.)
40:009 Drop course. (Elements of Psychology - 1 hr .)
40:125g New course. Child Psychopathology -- 3 hrs.
Overview of childhood problems ranging from minor problems in adjustment to severely disabling disorders; primary focus on research findings relevant to assessment, etiology, prognosis, and management. Prerequisites: 40:008; plus any one from $40: 120,31: 055,20: 100$, or equivalent of one of these, or consent of instructor.

40:155g Change description and prerequisite. (Physiological Psychology) Description: Neurobiological basis of behavior; how human brain receives sensory input, integrates information, and directs responses; neural control of arousal, sleep, dreaming, eating, and sexual behavior; physiological mechanisms of learning, memory, and emotion. Prerequisite: 40:008 or equivalent, or permission of instructor.

40:165g Change description and prerequisite. (Physio. Psych. Lab.) Description: Basic laboratory procedures used by physiological psychologists; student will use procedures to design and implement a short research project. Prerequisite or corequisite: 40:155; or permission of instructor.

## SOCIAL SCIENCE

## SOCIOLOGY, ANTHROPOLOGY, AND SOCIAL WORK

-to read:


At least 15 credits toward the major must be in upper-division (100-level) courses.
A minor is required, and is strongly recommended that the minor be in another social science discipline.

## SOCIOLOGY MAJOR (restatement of major)

-to read:

| Required: $98: 058 ; 98: 060 ; 98: 080 ; 98: 085 ; 98: 170 ; 92: 053 ; 94: 014$ | 21 hours |
| :--- | :--- |
| Electives in sociology | 15 hours |

At least 15 hours toward the major must be in upper-division (100-level) courses. No minor is required.
SOCIOLOGY MINOR-Teaching and Liberal Arts (restatement of minor)
-to read:


98:080 Add prerequisite: 98:058 or 99:011.
98:085 Add prerequisite: 98:080.
98:114g Change title from "Sociology of Work" to Industrial Sociology.
$98: 121 \mathrm{~g}$ Change title and add prerequisite. Title from "The Sociology of Mental Illness" to Mental Deviance and Mental Health Institutions. Prerequisite: 98:060 or permission of instructor. (same as 45:121)

98:123g New course. Social Deviance and Control -- 3 hrs.
Causes and consequences of socially disapproved behavior; role of social control agencies in recruitment of deviant identities, management of and reaction to deviance; dynamics of labelling processes and examination of the social meaning of non-normative behavior. Prerequisite: 98:060.

98:125g New course. Social Gerontology - 3 hrs.
Personal, interpersonal, and societal factors in the human aging process; emphasis on family, community and governmental responsibility in defining and resolving problems of the aged in a modern industrial society. Prerequisites: 98:058; 98:060.

98:171g Change course number and description (Contemporary Sociological Theories), Change number to 98:200. See new number for description.

45:085 Add prerequisite: 98:080
$45: 110 \mathrm{~g}$ Change course number to $45: 164 \mathrm{~g}$ (Human Behavior and the Social Environ.)
$45: 120 \mathrm{~g}$ Change course number and title. Number to $45: 144 \mathrm{~g}$. Title from "Social Policy and Policy Change" to Social Welfare Policy and Services III.

45:121g Change title and add prerequisite. Title from "Sociology of Mental lliness" to Mental Deviance and Mental Health Institutions. Change prerequisite to: Prerequisites: 98:058;98:060 or consent of instructor.
$45: 130 \mathrm{~g}$ Change course number to $\mathbf{4 5 : 1 6 3 g}$ (Minority Group Relations)
45:140 Change course number and title. Number from 45:181 to 45:140. Title from "Introduction to Social Welfare" to Social Welfare Policy \& Services I.

45:142 Change course number and title. Number from 45:182 to 45:142. Title from "Social Work Services" to Social Welfare Policy and Services II.

45:144g Change course number and title. Change number from $45: 120 \mathrm{~g}$ to $\mathbf{4 5 : 1 4 4 \mathrm { g } \text { . Title }}$ to Social Welfare Policy and Services III.

45:163g Change course number from $45: 130 \mathrm{~g}$ to $45: 163 \mathrm{~g}$. (Min. Gp. Rel.)
$45: 164 \mathrm{~g}$ Change course number from $45: 110 \mathrm{~g}$ to $45: 164 \mathrm{~g}$. (Hum Beh. \& Soc. Env.)
45:181 Change course number from $45: 181$ to $45: 140$ (Intro. to Soc. Welf. etc.)
45:182 Change number and title. Number to $45: 142$ (see new number for title).

45:183 Change course number, title, and add prerequiste. Number to 45:191. Title from "Social Work Methods" to Social Work Practice I. Prerequisite to: 45:142 or consent of instructor.

45:184 Change prerequisite: 45:191; corequisite: 45:192 or permission of instructor.
45:185g Change course number, title, and prerequisite. Number to $45: 196 \mathrm{~g}$. Title from "Social Work Methods II" to Community Organization Practice. Prerequisite: 45:192.

45:187g Change course number and prerequisite. (Therapeutic Communication). Change number to $45: 193 \mathrm{~g}$. Prerequisite: $45: 192$. Corequisite: $45: 184$ or consent of instructor.

45:191 Change course number, title, and add prerequisite. Number from 45:183 to 45:191. Title from "Social Work Methods" to Social Work Practice I. Prerequisite: 45:142 or consent of instructor.

45:192 New course. Social Work Practice II -- 3 hrs. Intermediate level, generic social work practice theory and skills; and task-centered internvention. Prerequisite: 45:191 or consent of instructor.

45:194 Add to prerequisite: Senior standing or consent of instructor. (Integrative Seminar)

45:195g New course. Social Group Work Practice -- 3 hrs.
Social group work theory, and small group dynamics; includes experiential or T-group component as part of educational experience. For student planning to work in group-work practice or in a graduate school. Prerequisite: 45:192 or consent of instructor.

## THE GRADUATE PROGRAM .-

## Master of Arts Degree

Major in History (restatement of major)
--Change statement of "required" courses to read:
Required:96:290 or 96:292; 96:193; and
96:289 United States Historiography
or 96:289 European Historiography or another approved historiography course.
(All other major statements and total hours remain the same.)

Major in Home Economics Education (restatement of major and addition of new emphasis)
--Change title of major to:

## MAJOR IN HOME ECONOMICS

--New program to read:

## MAJOR IN HOME ECONOMICS

A minimum of 30 semester hours in required in both the thesis and non-thesis options for this major. Additional hours may be required if a student lacks the equivalent of the undergraduate major in the graduate emphasis area upon entering the graduate program. Total hours for the thesis option includes 6 hours of credit for the thesis. Students selecting the non-thesis option are required to write a research paper and take a written comprehensive examination on their graduate program. Two emphases are offered in this major.

Required for both emphases: 31:281 and
electives as approved by the departmental graduate committee.
These electives may include courses in related disciplines such as chemistry, biological science, art, psychology, educational psychology, social work and/or sociology.
I. Emphasis in Home Economics Education -Required: $31: 280$ or $31: 282,31: 283$.
II. Emphasis in General Home Economics -- (new emphasis) Required: $31: 284 ; 31: 290$.

At least 15 of the total hours for either program must be in the emphas is area selected. 31:281, $31: 284,31: 285,31: 286,31: 289$ and $31: 290$ may be counted toward either emphasis depending upon the content of the course.

## --To read:

The major in sociology is available only on the thesis option. A minimum of 30 hours, including 6 hours of research credit, is required.

Required: 98:200 and 98:201
At least 12 hours of electives in sociology, with six of these elective hours at the 200 level.
(All other program statements and requirements remain the same.)

## COLLEGE OF EDUCATION

## CURRICULUM AND INSTRUCTION

# MIDDLE SCHOOL/JUNIOR HIGH SCHOOL EDUCATION MAJOR (restatement of major) 

--Change 5th line of first paragraph of program description to read:
"... a subject field area of 16 to 30 hours,"

# HOME ECONOMICS SUBJECT FIELD--Middle School/Jr. High Educ. Major (restatement of subject field) 

--Add 31:190 to list of required courses.
Total hours to read: $\mathbf{2 5}$ hours
COACHING ENDORSEMENT, OPTION I--Middle School/Jr. High Educ. Major (restatement of subject field)
--Change first statement of electives to read:
"Electives: 6 hours from *38:101; 38:102; 38:103; 38:104; 38:108;
38:109; 38:125
6 hours
-Change total hours from 20 hours to
16-17 hours
$\begin{array}{ll}\text { 22:240 } & \text { New course. The Consultation Process in Special Education -- } 3 \text { hrs. } \\ \text { Examination, analysis, and application of a methodological model for consulting } \\ \text { with teachers of handicapped children. Emphasis on process considerations } \\ \text { including interpresonal relations, interaction patterns, interpersonal influence and } \\ \text { effect of responses, and communication skills. }\end{array}$
22:245 New course. Resource Strategies for the Handicapped -- 3 hrs.
Prompting techniques, concept teaching, a principle format for analyzing/designing instruction, systematic development of strategies, and in-service training considerations. Principles and techniques of educational diagnosis, instructional analysis, and instructional strategy design as these relate to the consultation process in special education.
$\begin{array}{ll}\text { 24:032 } & \begin{array}{l}\text { New course. Audio-Visual Equipment Maintenance -- } 1 \mathrm{hr} \\ \\ \text { Basic mechanical and electronic maintenance of traditional audio-visual } \\ \text { equipment. Lecture, } 1 \mathrm{hr}, \text {; lab., } 1 \mathrm{hr} \text {. Prerequisite: consent of instructor. }\end{array}\end{array}$
24:132g Change credit from 3 hrs. to $\mathbf{1 - 3}$ hrs. (Materials of Instruction)
24:138g New course. Graphics Production -- 2 hrs.
Assessment of the generation, manipulation, integration and final formats of type, artwork, and photography applied to printed and projected materials; creative applications of current technology in the development of visuals. Prerequisite: 24:031 or 24:131.

24:148g New course. Advanced Photographic Techniques - 2 hrs. Monochromatic photography including view camera techniques, composition, sensitometry, selection of photographic chemistry and emulsions, filters, specialized printing and finishing techniques. Prerequisite: 24:147 or consent of instructor.

24:149g Change course number to 24:230 (Communication Theory in Media)
24:230 Change course number from $24: 149 \mathrm{~g}$ to $24: 230$.
24:232 Change credit from 3 hrs. to $\mathbf{1 - 3}$ hrs. (Section and Integration of materials)

## EDUCATIONAL PSYCHOLOGY AND FOUNDATIONS

118 20:018 Change description to read: Direct experiences will be provided which encourage student to apply concepts and principles of learning and evaluation. Must be taken on "ungraded" (Credit/No Credit) basis. (Teacher as Change Agent)

20:180 Add to description: May be repeated once for credit. (Field Experiences: Urban Education)

## LIBRARY SCIENCE

35:123g New Course. The Media Program and the Teacher -- 3 hrs . Introduces to elementary and secondary teachers the school media specialist and the media center, its program and materials. (Not open to library science majors or minors.)

35:190g Drop course. (Teaching the Use of Libraries -- 3 hrs .)

## PHYSICAL EDUCATION

123 HEALTH EDUCATION MAJOR-Teaching (restatement of major)
--Under "required" courses, change "31:037" to read: 31:030 or 31:037.
(All other statements and requirements remain the same.)

123

37:050 Drop prerequisite (84:024). (A natomy)
37:160 New course. Sports Safety Techniques - 2 hrs.
Various aspects of sports safety, emphasis on player and spectator protection; legal liability as it relates to athletic training. Prerequisites: 38:150 or 37:050 and $37: 151$; 38:115 or 39:145.

37:162g New course. Recognition and Evaluation of Athletic Injuries - $\mathbf{2}$ hrs. Prerequisites: 38:150 or $37: 050$ and $37: 151 ; 38: 115$ or $39: 145 ; 84: 138$.

37:164g New course. Rehabilitation of Athletic Injuries -- 2 hrs.
Physiological effects, indications and contraindications, and the physics of modalities used in injury rehabilitation. Prerequisites: 38:150 or 37:050 and $37: 151 ; 38: 115$ or $39: 145 ; 84: 138$.

37:171 New course. Internship in Athletic Training - 1-4 hrs.
Comprehensive intern experience. May be repeated for a total of 4 hours in different areas of athletic training. Prerequisites: $38: 150$ or $37: 050$ and 37:151; 38:115 or $39: 145 ; 84: 138$.

## PHYSICAL EDUCATION FOR MEN

ATHLETIC TRAINING MINOR (restatement of minor and move statement of minor to "Physical Education" -- p. 123)

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--to read:
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Required: $31: 030 ; 37: 010 ; 37: 015 ; 37: 160 ; 37: 162 ; 37: 164 ; 37: 171$;
$38: 155 ; 84: 138 ; 38: 115$ or $39: 145 ; 38: 150$ or $37: 050$ and
37:151
27-31 hours
--Request regarding "introductory paragraphs" on p. 126 of 1976-78 Catalog:
--Add to last sentence of advisory statement: "... except for students majoring or minoring in physical education or recreation."

COACHING MINOR-Teaching and COACHING ENDORSEMENT--Middle School/Jr. High Ed. Major Subject Field (OPTION I)
--Combine program statement into one statement, reading:
This program carries coaching endorsement for grades K-12. It does not, however, qualify the student for certification to teach physical education at any level. (*See Department of Curriculum and Instruction, p. 111 for full Middle School/Jr. High Ed. major program.)


38:040 New course. Cardiac Life Support -- 2 hrs.
For basic rescuer and basic instructor: Cognitive knowledge of basic cardiace life support and the development of psycho-motor skills necessary for proper performance of cardiopulmonary resuscitation. Prerequisite: 37:010 or consent of instructor.
38:115g Change title from "Care and Prevention of Athletic Injuries I" to Prevention and Care of Athletic Injuries.
36:116g Drop course. (Care and Prevention of Athletic Injuries 11 -- 3 hrs.)
38:140g New course. Experience in Cardiac Rehabilitation -- 2 hrs .
Laboratory aide training and experience under supervision of an exercise physiologist, physician, and a registered cardiac nurse. Lecture, 1 period; lab., 3 periods.

## PHYSICAL EDUCATION FOR WOMEN

PHYSICAL EDUCATION FOR WOMEN MINOR-Teaching (restatement of minor) --to read:

| Required: 39:191; 39:193; ${ }^{*} 38: 150$ | 9 hours |
| :---: | :---: |
| Required: 39:021; 39:022; 39:023; 39:027; 39:030; 39:032; $39: 034 \quad 7$ hours |  |
| Electives: 6 hours from: $37: 010 ; 37: 152$ or $37: 156 ; 37: 176 ;$ 37:183; 39:083; 39:140 (1-2 hours in basketball, volleyball, |  |
| softball, tennis, or track and field) . . . . . . . . | 6 hours |
|  | 22 hours |

*37:050 and 37:151 may be substituted for 38: 150 .
PHYSICAL EDUCATION FOR WOMEN MI NOR (restatement of minor)
--Change following two listings to read:
Required activities: from 39:021 through 39:034; 39:036 through 39:039; and from: 39:040; 39:050; 39:055

Required from: 37:013; 37:031; 37:050; 37:132; 37:151; $37: 181$; $39: 131$; $39: 194 ; 84: 138$

## PHYSICAL EDUCATION MINOR-Elementary Teaching (restatement of minor)

--Change "Electives" to read:
Electives: 45 hours chosen from 37:010 (1 hr. only); 37:156;
50:130;84:138 . . . . . . . . . . . . . . . . . . . 4-5 hours
(All other statements and requirements, including hours, remain the same.)
DANCE MI NOR--Teaching and Liberal Arts (restatement of minor)
--to read:
Required activities: 39:003 (ballroom or square dance); 39:023;
39:027; 39:050; 39:055; 39:111*
6 hours
Required: $37: 018 ; 37: 181 ; 37: 198 ; 39: 125 ; 39: 193 ; 50: 102.12-13$ hours
Electives: 24:131 or 27:137; 50:034 or 62:070; 52:102 or $54: x x x ; 60: 001$ or $60: 003$ or 60:095 or 60:141; 39:003 (ballet); 39:040

4-5 hours
22-24 hours
*Student may test out of this course.
Required 37:198 must be relevant to dance minor.
COACHING OF WOMEN'S SPORTS MINOR-Teaching (restatement of minor)
--Change second listing of "required hours" to read:
Required: 2-3 hours in 39:036 or 39:040. Must include one experience each in officiating and assisting

2-3 hours
(All other requirements and statements, including hours, remain the same.)
--No curricular proposals submitted.

## TEACHING

--No curricular proposals submitted.

## THE GRADUATE PROGRAM

## Master of Arts in Education Degree

MAJOR IN EDUCATIONAL MEDIA (restatement of major) -- To read:
This major is designed to prepare educational media specialists for a variety of professional positions in educational settings, including: school building level, school district level, vocational-technical school, junior college, and university. The student must hold certification valid for either elementary or secondary school teaching to meet the requirements in lowa for endorsement as an Educational Media Specialist.

The major is available on both the thesis and non-thesis options for a minimum total of 30 semester hours on either option.

Required: $24: 131 ; 24: 135 ; 24: 137$ or $24: 138 ; 24: 147 ; 24: 205 ;$
$24: 230 ; 24: 289 ; 24: 290 ; 27: 220$ or 27:227.
Electives: as recommended by the department.
MAJOR IN SPECIAL EDUCATION (restatement of major) -- to read:

## Required: Professional Core A

Required: Competence through examination or course work at either the graduate or undergraduate level in 22:170, 22:171, 22:174, and 4 semester hours of 22:192 from tutorial, profound, preacademic, primary, intermediate, or secondary.

Required: Competence demonstrated through proficiency evaluation or course work at the graduate level in 22:184, 22:252, and 22:290 which must be taken concurrently.

Emphasis: The student may choose one of the following three emphases; and competency may be demonstrated through proficiency evaluation or course work.

## Profound/Severe/Preacademic:

Required: 22:183;
22:187, 22:289, 22:290 taken currently;
and 5-8 semester hours of electives from a selected list.

## Elementary:

Required: 22:180; 22:182; 23:147; 23:192;
22:289 and 22:290 to be taken concurrently;
and 2-6 semester hours of electives from a selected list.
Secondary:
Required: 22:181; 22:182;
22:251, 22:289, 22:290 taken concurrently; and $6-10$ semester hours of electives from a selected list. Consultant" (new program to be listed immediately after statement of programs under Special Education-Master of Arts in Educ.)
--To read:

## Note: Educational Strategist/Teaching Consultant Program

The special education offerings include a program for the preparation of special education resource strategists/teaching consultants which includes course work which is beyond the requirements for the master's degree but which may be completed near or at the end of the master's degree course work. The prescribed requirements for this program also may be completed while completing the appropriate Specialist in Education degree or after completion of the master's degree.

To be eligible for this certification program, a student must have completed an acceptable master's degree (in special education or the equivalent), to be approved in at least one disability area (i.e., mental retardation, emotional disturbance, learning disabilities), have at least two years of teaching experience, and qualify for Endorsement 10, 20, or 35. A program sheet with specific details may be obtained from the departmental office, Department of Curriculum and Instruction. A total of 28 semester hours is required.

## Phase I

Required: 22:170; 22:174; 22:192 (Tutorial)

## Phase II

Required: 22:171; 22:192 (Group);
and two from the following: 22:180, 22:181, 22:182,
$22: 183,22: 187,22: 240,22: 245,22: 289$ ( 2 hrs ), 22:290.

## Master of Arts Degree

220 MAJOR IN COMMUNICATIONS MEDIA (restatement of major)
--Change listing of "required" courses to read:
Required: 24:131; $24: 135 ; 24: 137$ or $24: 138 ; 24: 147 ; 24: 205 ;$ 24:230; 24:289.
(All other statements and requirements remain the same.)

## COLLEGE OF HUMANITIES AND FINE ARTS

## ART

ART MAJOR-Teaching (restatement of major)
--Change the third list of "required" courses (total of 12 hours) from one list to two separate lists (6 hours each) to read:

Required: at least two of the following: 60:018; 60:025; 60:026; 60:032; 60:034; 60:080

6 hours
Required: at least two of the following: 60:027; 60:037;
60:050;60:056; 60:057;60:74; 60:075
6 hours
"'(All other statements and hours remain the same.)

60:040 Change description (Survey of Art History) to read: An introduction to the history of painting, sculpture, architecture, and other arts; ancient and modern.
60:054 Change course number and description. (Puppetry-3 hrs.) Change number from $60: 160 \mathrm{~g}$ to $60: 054$. Description: Design, construction, manipulation, staging of various puppet forms. Includes individual and group experiementation with materials, operation, staging, lighting, and filming.

60:160g New course. Advanced Puppetry -- $1-5 \mathrm{hrs}$.
Credit to be determined at time of registration (first registration must be for 3 hrs.). May be repeated with consent of instructor for a total of 6 hrs. Prerequisite: 60:054.

## ENGLISH LANGUAGE AND LITERATURE

## ENGLISH MAJOR-Teaching (restatement of major)

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-to read:
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| Required: $62: 034 ; 62: 042 ; 62: 043 ; 62: 052 ; 62: 190$ |  |  |
| :--- | :--- | ---: |
| Required: 6 hours of writing courses (only 3 hours may be taken |  |  |
| from $62: 002,62: 003,62: 04)$ | 6 hours |  |
| Required: two of the following courses: $63: 130 ; 63: 132 ; 63: 125$ | 6 hours |  |
| Electives in English | $\cdots \cdots$ | 15 hours |
|  |  |  |

[^12]-to read:


140 JOURNALISM MINOR--Teaching and Liberal Arts (restatement of minor)
-to read:

| Required: 66:032; 66:040; 66:140 | 9 hours |
| :---: | :---: |
| Electives: at least 6 hours from the following: 66:102; *66:103; 66:104; 66:105; 66:131; 66:132; 66:141; 66:150; 66:110; |  |
| 13:142; 13:147; 13:162; 24:147; 33:155; 33:158; 50:051; |  |
| 50:060; 50:062; 50:161 | 6 hours |
| *Recommended for students on the teaching program. | 15 hours |

ENGLISH AS A FOREIGN LANGUAGE MINOR-Teaching and Liberal Arts (restatement and and retitling of minor)
--Change title to read: TEACHING ENGLISH AS A FOREIGN LANGUAGE (TEFL) MINOR
--Delete "Teaching and Liberal Arts" - this becomes only a liberal arts minor.
(All other statements and hours remain the same.)
141. 62:034 Change description to: Practice in written analysis of literary genres, including poetry, drama, short story, and novel. (Analysis of Literary Forms)

141 62:042 Change title and description. Title from "Survey of English Literature I" to Tradition of British Literature to 1800. Description: Major trends and masterpieces from Medieval, Renaissance, and 18th Century periods: 700-1800.

62:043 Change title and description. Title from "Survey of English Literature II" to Tradition of British Literature Since 1800. Description: Major trends and masterpieces from the Romantic, Victorian, and Modern periods: 1800 to present.

62:052 New course. The Tradition of American Literature -- 3 hrs.
Broad trends and important writers in the American literary tradition, from 1620 to 1950. Strongly recommended to precede advanced-level courses in American literature.

62:122g Drop course. (American Genteel Writers - 2 hrs.)
62:127g Drop course. (American Drama -- 3 hrs.)
62:162g Change course number (The Structure of English) to 63:130g.
62:164g Change course number (Semantics) to 63:142g.
62:166g Change course number (History of the English Language) to 63:132g.

62:191g New course. Seminar for the Student Teacher - 1 hr .
An intensive course to integrate 62:190 with the student teaching experience.

63:120g Change course number (Historical and Comparative Linguistics) to $63: 134 \mathrm{~g}$.
$63: 130 \mathrm{~g}$ Change course number from $62: 162 \mathrm{~g}$ (Struc. of English).
63:132g Change course number from 62:166g (Hist. of English Lang.).
63:134g Change course number from $63: 120 \mathrm{~g}$ (Hist. and Comp. Ling.).
63:142g Change course number from $62: 164 \mathrm{~g}$ (Semantics).
63:235 Change title from "Contrastive Analysis" to Contrastive and Error Analysis.
63:289 Change prerequisite to read: 63:130 or 63:125.
66:110g New course. Field Experience in Journalism -- 1-6 hrs.
Student works with local newspaper and/or local agency whicb produces newsletters, brochures, and press releases to gain on-the-job experience in the print media. Prerequisite: 66:040; 66:140; and at least junior standing, and consent of instructor.

66:140g New course. Advanced Reporting -- 3 hrs.
Gathering information and writing of complex news stories; emphasis on the social, legal, and moral rights and responsibilities of the journalist. Prerequisite: 66:040 or consent of instructor.

## ENGLISH/MODERN LANGUAGE PROGRAMS

TEFL/FOREIGN LANGUAGE MAJOR--Teaching (restatement of major)
--Change Spanish "emphasis" to read:
Spanish: 78:051 (2 hrs.); 78:052 (2 hrs.); 78:061 (3 hrs.); 78:062 (3 hrs.); 78:071; 78:101, 78:105; 78:107; 78:123; 78:180; 70:190; and electives in Spanish to make 30 hours.

ENG LISH AND FOREIGN LANGUAGE COMBINED MAJOR (restatement of major)
--Change Spanish "emphasis" to read:
Spanish: 78:051; 78:052; 78:061; 78:062; 78:101; 78:103; 78:123; 78:140; 78:180; 78:107 to make 27 hours.

## MODERN LANGUAGES

GERMAN MAJOR--Teaching (restatement of major)
--to read:
Required: a minimum of 30 semester hours in German in courses more advanced than 74:002, including 74:070, 74:071, 74:101, 74:180, and 70:190, of which at least 20 hours must be in courses numbered 100 or higher.

LATIN MINOR-Teaching and Liberal Arts (drop minor)

SPANISH MAJOR--Teaching (restatement of major)
--to read:
Required: a minimum of 30 semester hours in Spanish in courses more advanced than 78:002, including 78:071, 78:080, 78:101, 78:180, and 70:190, of which at least 20 hours must be in courses numbered 100 or higher.
--to read:
Required: a minimum of 30 semester hours in Spanish in courses more advanced than 78:002, including 78:071, 78:080, and 78:101, of which at least 20 hours must be in courses numbered $\mathbf{1 0 0}$ or higher.

## 70:099 New course. Preparation for Study Abroad -- 2 hrs.

For students planning to stuay and travel abroad. Includes practical, social, geographic, and cultural aspects; some emphasis on contrasting American and foreign cultures. No credit on major or minor in foreign language.

70:120g New Course. Western Literatures - 3 hrs.
Study of a limited aspect or genre of European or Latin American Literature in English translation. No credit on major or minor in a foreign language.

## 70:150g New course. Perspectives in Bilingualism -- 3 hrs.

Elements involved in bilingualism for defining and understanding the various facets of bilingualism in today's world, such as: International Bilingualism, Bilingualism in the United States, Bilingual Education and Opportunities in Bilingualism.

72:090 New course. Teaching French in the Elementary Schools -- 1 hr .
Techniques and practice in teaching French; includes weekly teaching experience in the local schools plus class sessions. May be repeated twice for credit. Prerequisite: consent of instructor.

72:091 New course. Bilingual Pre-Practicum -- 3 hrs.
For the second and third-level student. Work with first-level classes which enables student to reinforce basic language skills through direct participation with first-level students. Prerequisite: consent of instructor.

72:108g New course. Oral Translation -- 3 hrs.
May be repeated once for credit. Prerequisite: 72:101 or equivalent.
72:180g Change credit from 2 to $\mathbf{3}$ hrs. (Applied Linguistics: French)
72:185g New course. Written Translation -- 3 hrs.
Fundamentals of written translation using varied text materials (public media, scholarly, professional and literary texts), from English to French and French to English. May be repeated once for credit. Prerequisite: 72:101 or equivalent.

74:091 New course. Bilingual Pre-Practicum -- 3 hrs.
For the second or third-level student. Work with first-level classes which enables student to reinforce basic language skills through direct participation with first-level students. Prerequisite: consent of instructor.

74:103g Add prerequisite or corequisite: 74:101 or equivalent.
74:107g Add description: May be repeated once for Credit (Oral Translation).
74:114g Change description to read: Selections from major periods up to the present.
74:116g Delete descritpion. (retain prerequisite)
74:117g New course. German Media - 3 hrs.
Provides opportunity to reinforce and expand basic knowledge of the language through reading, writing, and discussing contemporary and realistic issues using German mass media (e.g., newspapers, magazines, radio, television, and film). May be repeated once for credit. Prerequisite: 74:101 or equivalent.

Drop course. (Contemporary German Prose)
74:119g Drop course. (Modern German Poetry)

74:146g Drop course. (German Drama of the 19th Century)
74:147g Change title from "Twentieth Century German Drama" to Masterpieces of the Modern German Stage.

74:185g New course. Written Translation -- 3 hrs.
Fundamentals of written translation using varied text materials (public media, scholarly, professional and literary texts), from English to German and German to English. May be repeated once for credit. Prerequisite: 74:101 or equivalent.

74:250 New course. German Literature in Review -- 3 hrs.
Major periods of German literature, literary genres, and techniques; primarily for students who plan to take the M.A. comprehensives in German. Prerequisite: consent of instructor.

76:130g Drop course. (Caesar -- 3 hrs .)
76:131g Drop course (Cicero - 3 hrs .)
76:132g Drop course. (Livy -- 3 hrs.)
76:134g Drop course. (Vergil -- 3 hrs.)
77:102g Change description. Second and third lines to read: "... authors from the beginning to the present, ...'

77:103g Drop course. (Introduction to Modern Russian Literature--3 hrs.)
77:105g Drop course. (Stylistics - 3 hrs.)
78:051 Change title, credit, and description. Title from "Intermediate Composition" to Composition I. Credit from $2-6$ hrs. to 2 hrs. Delete following from description: "May be repeated once for credit with approval of instructor. (Combination of credit together with 78:061 may not total more than 5 hours in one semester.) Initial registration would be for 2-3 hours."

78:052 Reinstate course. Composition II -- 2 hrs.
Continuation of 78:051, leading to free composition. Prerequisite: 78:051 or equivalent; corequisite: 78:062 or other intermediate course with approval of department head.

78:061 Change title, credit and description. Title from "Intermediate Conversation" to Conversation I. Credit from 2-6 hrs. to 3 hrs. Delete the following from description: "May be repeated once for credit with approval of instructor. (Combination of credit together with 78:051 may not total more than 5 hours in one semester.)"

78:062 Reinstate course. Conversation II - 3 hrs.
Continuation of 78:061, with wider range of subjects, vocabularly and structures. Prerequisite: 78:061 or equivalent; corequisite: 78:052 or other intermediate course with approval of the department head.

78:071 Change title and add description. Title from "Introduction to Hispanic Literature I (Prose)" to Introduction to Hispanic Literature. Description: Selected major works of representative Hispanic authors. Application of language skills to basic literary analysis. Prerequisite or corequisite: 78:080 or equivalent.

78:072 Drop course. (Introduction to Hispanic Literature II (Poetry) -- 3 hrs.)
78:080 New course. Selected Spanish Readings -- 3 hrs.
Reading and discussion of contemporary books, magazines, and extracts of subjects of interest to students to develop reading ability through nonliterary texts. Prerequisites: 78:051; 78:061; or equivalent.

| $152 \quad$ 78:090 | New course. Teaching Spanish in the Elementary School -- $1 \mathrm{hrs}$. <br> Techniques and practice in teaching Spanish at elementary school level; includes <br> weekly teaching experience in local school, plus class sessions. May be repeated |
| :--- | :--- | twice for credit. Prerequisite: consent of instructor.

$\begin{array}{ll}\text { 78:091 } & \begin{array}{l}\text { New course. Bilingual Prepracticum -- } 3 \text { hrs. } \\ \text { For second and third-level students. Work with first-level classes which enables } \\ \text { student to reinforce basic language skills through direct participation with } \\ \text { first-level students. Prerequisite: consent of instructor. }\end{array} \\ 78: 103 \mathrm{~g} & \begin{array}{l}\text { Add prerequisite, to read: Prerequisite or corequisite: 78:101 or equivalent. } \\ \text { (Advanced Converstation) }\end{array}\end{array}$
78:107g Add to description: May be repeated once for credit. (Oral Translation)
78:117g Drop course. (Contemporary Spanish Poetry -- 2 hrs.)
78:118g Change title from "Contemporary Spanish Prose" to Contemporary Spanish Literature.

78:119g Drop course. (Modern Essay - 2 hrs.)
78:121g New course. Spanish Media - 3 hrs.
Provides opportunity to reinforce and expand basic knowledge of the language through reading, writing, and discussing contemporary and realistic issues using Spanish mass media (e.g., newspapers, magazines, radio, television, and film). May be repeated once for credit. Prerequisite: 78:101 or equivalent.
78:130g Change title and description. Title from "Golden Age Prose" to Golden Age Literature. Description to read: Outstanding literary works of this period, including prose, drama, and poetry. Prerequisite or corequisite: 78:101 or equivalent.

78:139g Change credit from 2 to $\mathbf{3}$ hrs. (Contemporary Theatre).
78:144g Change title and credit. Title from "Latin American Poetry" to Hispanic Poetry. Credit from 2 to 3 hrs.

78:149g New course. Applied Theatre: Spanish - 1-3 hrs.
Participation in Spanish theatre. Prerequisite: 78:101 or equivalent, and consent of instructor.

78:180g Change credit from 2 to $\mathbf{3}$ hrs. (Applied Linguisitics: Spanish)
78:185g New course. Written Translation -- 3 hrs.
Fundamentals of written translation using varied text materials (public media, scholarly, professional and literary texts), from English to Spanish and Spanish to English. May be repeated once for credit. Prerequisite: 78:101 or equivalent.

78:191g New course. Bilingual Practicum -- $\mathbf{3}$ hrs.
Participation in lower-level class activities to acquire first-hand knowledge of methodology involved. Participants will also meet on regular basis with instructor to discuss, in Spanish, their experiences; reinforces and expands conversational command of the language. Prerequisite: 78:091; 78:101 or equivalent; and consent of instructor.

78:195g New course. Psycholinguistics: Spanish -- 3 hrs.
Introduction to field of psycholinguistics and its application to study of a language. Analysis of language from humanistic point of view; students learn to deal more effectively with cross-cultural situations reflected in the language spoken by an given culture. Prerequisite or corequisite: 78:101.

## MUSIC

## 72

## BACHE LOR OF MUSIC DEGREE CURRICULA (restatement of degree)

All candidates for the Bachelor of Music Degree will complete a pattern similar to the following:
General Education . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
Music Requirements lapplied, theory, history and literature, 40 hours
conducting, ensembles, recital, composition, electives) . . . . .
General Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . .

Total minimum hours
130 hours
The following majors are offered on this degree program:
Music Education (Teaching) -- 65 hours
Performance (Voice, Piano, Organ, Band-Orchestral Instruments) -- 80 hours
Theory-Composition - 80 hours

If certification to teach is desired, the student must complete the Common Professional Sequence (see p. 68). The Music Education Major carries certification to teach for grades K-12.

The approval of the faculty, undergraduate coordinator in music, and the head of the Department of Music must be secured before a student is admitted formally to this degree program. All students who have been admitted to the department and wish to pursue a music major curriculum should undertake a common core of required courses during the freshman year. During the second semester of the freshman year, an extensive evaluation of each music major will be conducted. Transfer students will be admitted conditionally to the department, and after one semester in residence, may be admitted formally to a program of study.

Participation in a performance organization such as band, chorus, orchestra, music theater, and other ensembles, is required of all degree students every semester in residence. It is recommended that students majoring in voice, Music Performance, and Theory-Composition complete at least 10 semester hours in a foreign language.

## BACHELOR OF FINE ARTS DEGREE (new degree and new major)

All candidates for this degree are required to complete a total of 130 semester hours in the following pattern:

| General Education | 40 hours |
| :---: | :---: |
| Major Requirements | 67-69 hours |
| General Electives | 21-23 hours |
|  | 130 hours |

The Music Theatre Major, an interdisciplinary program, is offered on this degree. Requirements for the major are:

| Music Core: | 52 hours |
| ---: | ---: |
| Theatre Core: | $15-17$ hours <br> Total:$\quad$$67-69$ hours |

Participation in a performance organization such as band, orchestra, chorus, music theater, and other ensembles, is required of all degree students every semester in residence. A basic knowledge of a foreign language is recommended.

The approval of the faculty, undergraduate coordinator in music, and the head of the Department of Music must be secured before a student is admitted formally to this degree
program. Students pursuing a music curriculum should undertake a common core of required courses during the freshman year. During the second semester of the freshman year, an extensive evaluation of each music major will be conducted. Transfer students will be admitted conditionally to the department, and after one semester in residence, may be admitted formally to a program of study.

Upon completion of specific requirements of the Music Education major under the Bachelor of Music degree, the student could qualify for certification to teach.

153 --Revise first statements to include the following introductory statements:
The Department of Music offers majors and minors under three baccalaureate degrees: The Bachelor of Music, the Bachelor of Arts, and the Bachelor of Fine Arts. These include:

| Bachelor of Music -- | Music Education Major <br> Performance Major <br> Theory-Composition Major |
| :--- | :--- |
| Bachelor of Arts -- | Music Major <br> Music Minor--Teaching <br> Music Minor (liberal arts) |

## Bachelor of Fine Arts -- Music Theater Major

The Music Education major prepares the student for a teaching career and provides certification in music for grades K-12. The Performance and Theory-Composition majors are professional degrees, designed to prepare the student for (1) careers as artists-performers, composers, or (2) entrance to graduate schools where further excellence in a performance area might be pursued.

The Music Major under the Bachelor of Arts degree is a liberal arts program for the student interested in combining the discipline of music training with the breadth offered by a liberal arts curriculum.

The Music Theater major under the Bachelor of Fine Arts degree is an interdisciplinary program combining courses from the Music and Speech-Theater departments. Graduates of this program could qualify for professional careers in music theater, and upon completion of the requirements for the Music Education major under the Bachelor of Music degree could qualify for directorial positions in the public schools.

## GENERAL REQUIREMENTS FOR UNDERGRADUATE MAJORS

Music majors on all degree programs must choose an area of applied music (54:xxx) for specialization and must meet the proficiency standards of the department.

Auditions: Admission to the Department of Music requires successful completion of an audition in the main performance area.

Piano Proficiency: Required of all majors.
Voice or Instrumental Proficiency: Required of all keyboard majors.
Foreign Language: Ten (10) semester hours of credit in a foreign language is strongly recommended for a student whose applied major or concentration is voice and for all students on the Bachelor of Music Performance and Theory-Composition programs.

Large Organizations: In addition to applied music, all music majors must participate in at least one of the large organizations each semester in which they are enrolled as regular university students. Participation in ensembles does not satisfy the large organization requirement unless exception is made in advance by the head of the department.
--Wind and Percussion students will elect either band of orchestra, and are required to participate in Marching Band for two semesters.
--String players will elect the orchestra.
--Voice majors will elect an appropriate choral group and/or music theater.
--Keyboard majors will elect a large organization for their participation requirement.

Credit for Organization Participation: One semester hour of credit may be earned by a student who completes a semester in a large organization or approved ensemble. Credit is reported only at the close of each semester. All music majors may earn a maximum of six (6) semester hours credit toward a degree for organization participation. Not more than two (2) semester hours credit in Jazz Band may be counted toward the maximum allowable hours. A maximum of two semester hours credit for organization participation may be earned by non-music majors on the Bachelor of Arts or Bachelor of Technology programs. (See page_for Organizations in which credit for participation may be earned.)

## DECLARATION OF MAJOR IN MUSIC

All students who have been admitted to the department and wish to pursue a music major curriculum should take the following courses during the freshman year:

## Freshman music core:

| Theory I, II (58:011; 58:0 |  |
| :---: | :---: |
| Aural Training I, II (58:015; 58:016) | urs |
| Exploring Music (52:020) |  |
| Applied Music (54:0xx; 54:0xx-2 |  |
| Ensembles (52:0xx; 52:0xx-1 hr. e |  |

During the second semester of the freshman year, an extensive evaluation of the student will be conducted. A student should petition at that time to enter a specific degree program. Approval of the faculty, undergraduate coordinator in music, and the department head is required before a student is admitted formally to a degree program in music. (Transfer students will be admitted contionally to the department and, after one semester in residence, may be admitted formally to a program of study.)

## Bachelor of Music Degree

MUSIC MAJOR--Teaching (restatement of major, transfer major from Bachelor of Arts degree to Bachelor of Music degree, and change title to MUSIC EDUCATION MAJOR)

## --to read:

## MUSIC EDUCATION MAJOR

Required: Applied music (including 3 hrs. of 100 -level work in
major area)
Music theory: $58: 011 ; 58: 012 ; 58: 013 ; 58: 014 ;$

154 PERFORMANCE MAJOR (restatement and retitling of major - subsumed under current Bachelor of Music "major" program -- remains under that baccalaureate degree)-to read:

Voice, piano, organ, band-orchestral instruments.


Additional requirements:

1. Junior recital (half recital).
2. Senior recital (full recital).

Recommended: All Bachelor of Music majors are encouraged to complete at least 10 hours in foreign languages.

THEORY-COMPOSITION MAJOR (retitling and restatement of major under Bachelor of Music degree)

| uired: Applied composition, | 18 hours |
| :---: | :---: |
| Applied piano (beyond keyboard proficiency) | 4 hours |
| Music theory: 58:011; 58:012; 58:013; 58:014; 58:015; 58:016; 58:017; 58:018; 58:110; 58:120; |  |
| 58:121; and electives in theory for total of | 27 hours |
| Music literature: including 59:010; 59:011) | 12 hours |
| Conducting: 57:020; 57:021 or 57:022 | 4 hours |
| Ensembles | 6 hours |
| Electives in music | 9 hours |
|  | 80 hours |

Additional requirement: Recital performance of student's composition.

## Bachelor of Arts Degree

MUSIC MAJOR--Teaching --(transfer this major to Bachelor of Music degree, see page 28 for new statement of major)

## MUSIC MAJOR (restatement of major)

| Required: Applied music (including at least 4 hours numbered over 100 in major area) | 16 hours |
| :---: | :---: |
| Music theory: 58:011; 58:012; 58:013; 58:014; 58:015; 58:016; 58:017; 58:018 | 16 hours |
| Music literature: 59:010; 59:011. | 6 hours |
| Electives in music (100-level courses) | 8 hours |

Additional requirement: Senior recital (may take the form of a performance, composition, or an essay).

MUSIC MINOR--Teaching and Liberal Arts (restatement of minor: divide into two separate minors)
-to read:

## MUSIC MINOR--Teaching


(Departmental audition requirements apply to this minor.)

## MUSIC MINOR

| Required: Applied music $\qquad$ Theory including $58: 011 ; 58: 012 ; 58: 015 ; 58: 016)$ | 4 hours 8-12 hours |
| :---: | :---: |
| Electives in music (preferably in history and literature) . . . . . . . | 48 hours |
|  | 20 hours |

(Departmental audition requirements apply to minor.)

## Bachelor of Fine Arts (new degree)

## MUSIC THEATER MAJOR (new major)

This major is an interdisciplinary program involving the Department of Music and Speech-Theatre of the Department of Speech.

## Music



Theater

| Required: $50: 055$ | Performing Voice (optional for voice majors) $-0-2$ hrs. |
| :--- | :--- |
| $50: 053$ | Theater Practice -.4 hrs. |
| $50: 153$ | Acting I -3 hrs. |
| $50: 150 \mathrm{~g}$ | Stage Costume $1-3$ hrs. |
| $50: 158$ | Makeup -2 hrs. |
| $50: 154$ | Directing -3 hrs. . . . . . . . . . . . . . . . . . . . |

Additional requirement: keyboard proficiency.
Upon completion of specific requirements of the Music Education major under the Bachelor of Music degree, a student could qualify for certification to teach.

155 Add following heading to precede list of "Organizations" for which credit may be earned for "participation" --

## ORGANIZATIONS FOR PARTICIPATION CREDIT

(statement beginning "Numbers in this group are assigned ....")

52:020 Change description (Exploring Music) to read: Provides historical background of and emphasizes representative compositions by major composers for non-performers.

52:221 Change description (Music Research and Biblio.) to: To acquaint student with source materials in music and to help locate thesis topic. Should be taken during first semester in residence by all graduate music students.

## APPLIED MUSIC (restatement of policy)

Note: Before registration in Applied Music can be accomplished the student must (1) successfully complete an audition in a main performance area and (2) meet the proficiency standards of the department.

The core of every music major curriculum is the individual lesson. All music majors must enroll in applied music during each semester in residence. Applied music is classified into three categories according to semester-hour credit received:

Major (for Performance majors only) -- 4 sem. hours
Concentration (all freshmen during Core requirements and all upperclass music majors except Performance majors) -- 2 sem. hours.

## Secondary - 1 sem. hours

Two half-hour lessons each week, per semester, are required for both major and concen tration applied students. Practice and performance demands for the major (B.M. "Performance") are more rigorous than for the concentration student.

The amount of credit for Applied Music to be carried will be determined at the time of registration. All students in the freshman music core will enroll for concentration applied, 2 sem. hours credit each semester. Applied music taken opposite student teaching earns 1 hour of credit and two lessons per week will be taken for the nine-week period the student is on campus. With approval, all music students may take applied secondary for one semester hour credit each semester. A one-half hour lesson per week is the requirement for secondary credit. Students approved for the Performance major under the Bachelor of Music degree (see under "Declaration of Major," p. ) will register for four (4) semester hours of credit in applied music beginning with the sophomore year.

The appropriate applied area faculty will determine the level of the student's qualifications ( $54: 0 \times x, 54: 1 \times x$, or $54: 2 \times x$ ) by audition and/or previous work on an instrument or in voice. A 200 number can be assigned only to a graduate student who has satisfactorily completed an audition and is preparing for a graduate major in voice or instrument.
(...remainder of statement stands as printed in Catalog)

54:154g Change course listing and title and delete description. Change title from "Applied Advanced Composition" to Composition. To be listed under "Applied Music" column and read:
54:054, 54:154g, 54:254. Composition. (prerequisite: 58:022 and consent of instructor)

54:189 Add to description: "(except those on the Bachelor of Fine Arts program)."
57:010 Change course number, credit, and description. Change number from 57:090 to 57:010. (Instrum. Tech.) Credit from 2-8 hrs. to 1 hr . Description: Areas: flute, clarinet and saxophone, double reeds, high brass, low brass, high strings, low strings, percussion, harp. One hour credit for each area. May be repeated for maximum of 8 hours but not in the same area.

57:020 Change course number (Basic Conducting) and add prerequisite: Change number from 57:080 to 57:020. Prerequisite: 58:012.

57:021 Change course number (Instrum. Cond. \& Mat.) and change prerequisite. Number from 57:081 to 57:021. Prerequisite: 57:020 and 58:013.

57:022 Change course number (Choral Cond. \& Mat.) and change prerequisite. Number from 57:082 to 57:022. Prerequisite: 57:020; 58:013.

57:080 Change course number from 57:080 to 57:020 (Basic Conducting).
57:081 Change course number from 57:081 to 57:021 (Instrum Cond. \& Mat.).
57:082 Change course number from 57:082 to 57:022 (Choral Cond. \& Mat.)
57:090 Change number and prerequisite. Number to 57:010. See new number for other changes. (Instrm. Tech.)

57:116g Change course number (Instrm. Jazz Improv.) to 57:152g.
57:130g Change course number (Vocal Pedagogy) from 57:184g.
$57: 131 \mathrm{~g}$ Change course number and description (Opera Production). Change number from 57:183g. Description: May be taken twice for credit. One semester student directs a scene, and the other the student participates in a performance.

57:135g Change course number (Accompanying) from 57:188g.
57:140 Change course number (Music Methods) from 57:192.
57:145g Change course number (Advanced Music Methods) from 57:196g.
57:148g Change course number from 57:193g (Piano Methods).
57:150g Change course number from 57:194g (Band-Orchestra Methods).
57:151g Change course number from 57:195g (Band-Orchestra Materials).
57:152g Change number from 57:116g (Instrumental Jazz Improv.).
57:157g Change number from 57:185g (School Stage Band).
57:160g Change number from 57:181g (Vocal Ensemble Materials).
57:181g Change number to $57: 160 \mathrm{~g}$.
57:183g Change number to 57:131g.
57:184g Change number to 57:130g.
57:185g Change number to 57:157g.

## 57:188g Change number to 57:135g.

57:192 Change number to 57:140.
57:193g Change number to $57: 148 \mathrm{~g}$.
$57: 194 \mathrm{~g}$ Change number to $57: 150 \mathrm{~g}$.
57:195g Change number to $57: 151 \mathrm{~g}$.
57:196g Change number to 57:145g.
57:220 Change number from 57:292 (Psychology of Music).
57:240 Change number from 57:280 (Planning and Supervision).
57:280 Change number to 57:240 (Planning and Supervision).
57:281 Change number to 57:289 (Seminar in Chorus).
57:283 Change number to 57:289 (Seminar in General Music)
57:290 Change number to 57:289 (Seminar in Band)
57:291 Change number to 57:289 (Seminar in Orchestra)
57:292 Change number to 57:220 (Psychology of Music).
58:011 Change course number, title, credit, and description, and add corequisite. Number from 58:050 to 58:011. Title from "Harmony I" to Theory I. Credit from 2 to 3 hrs. Description: Fundamentals of basic musicianship; scales, intervals, chord forms; analysis and writing involving diatonic harmony. Creative use of materials. Corequisite: 58:015.

58:012 Change course number, title, credit, and description, and add corequisite. Number from 58:051 to 58:012. Title from "Harmony II" to Theory II. Credit from 2 to 3 hrs. Description: Continuation of 58:011. Corequisite: 58:016.

58:013 Change course number, title, credit, and description, and add corequisite. Number from 58:052 to 58:013. Title from "Harmony III" to Theory III. Credit from 2 to 3 hrs . Description: Materials of musicianship; emphasis on the so-called period of "common practice." Corequisite: 58:017.

58:014 Change course number, title, credit, and description, and add corequisite. Number from 58:053 to 58:014. Title from "Harmony IV'' to Theory IV. Change credit from 2 to 3 hrs. Description: Continuation of $58: 013$ with emphasis on Late Romantic and Contemporary eras. Corequisite: 58:018.
58:015 Change course number and title. Number from 58:055 to 58:015. Title from "Ear Training and Sight Singing 1 " to Aural Training 1.

58:016 Change course number and title. Number from 58:056 to 58:016. Title from "Ear Training and Sight Singing II" to Aural Training II.

58:017 Change course number and title. Number from 58:057 to 58:017. Title from "Ear Training and Sight Singing III" to Aural Trairing III.

58:018 Change course number and title. Number from 58:058 to 58:018. Title from "Ear Training and Sight Singing IV"' to Aural Training IV.

58:022 Change course number, title, description and prerequisite. Number from 58:152g to 58:022. Title from "Composition" to Composition Class. Description and prerequisite to: Creative work in the primary forms. Prerequisite: 58:012 or consent of instructor. (F or applied composition, see 54:054.)

58:050 Change course number, title, credit and description, and add corequisite. Number to 58:011 (see new number).

58:051 Change course number, title, credit and description, and add corequisite. Number to 58:012 (see new number).

58:052 Change course number, title, credit, and description, and add corequisite. Number to 58:013 (see new number).

58:053 Change course number, title, credit, and description, and add corequisite. Number to 58:014 (see new number).

58:055 Change course number and title. Number to 58:015 (see new number).
58:056 Change course number and title. Number to 58:016 (see new number).
58:057 Change course number and title. Number to 58:017 (see new number).
58:058 Change course number and title. Number to 58:018 (see new number).
$58: 110 \mathrm{~g}$ Change course number, title, credit, description, and prerequisite. Number from $58: 155 \mathrm{~g}$ to $58: 110 \mathrm{~g}$. Title from "Form and Analysis" to Analysis of Music Literature. Credit from 2 to 3 hrs . Description and prerequisite: Forms and procedures prevalent in the works of major composers from the 16 th century to the present. Prerequisite: 58:014.

58:120g Change course number and prerequisite. Number from $58: 151 \mathrm{~g}$ to $58: 120 \mathrm{~g}$. Prerequisite: 58:013.

58:121g Change course number, credit, description, and prerequisite. Number from $58: 150 \mathrm{~g}$ to $58: 121 \mathrm{~g}$. Credit from 2 to 3 hrs . Description and prerequisite to: Contrapuntal technique and instrumental forms of the 18th century. Analysis and creative work in representative forms. Prerequisite: 58:013.

58:122g Change course number from 58:252 (Advanced Comp.) and change prerequisite. Prerequisite: 58:022 or consent of instructor.

58:125g Change course number and prerequisite. (Instrumentation and Arranging) Number from 58:153g. Prerequisite: 58:013.
$58: 130 \mathrm{~g}$ Change course number from $58: 156 \mathrm{~g}$ (20th Century Non-Tonal Music).
$58: 150 \mathrm{~g}$ Change number to $58: 121 \mathrm{~g}$. (see new number for other changes)
$58: 151 \mathrm{~g}$ Change number to $58: 120 \mathrm{~g}$ (see number number for other changes).
58:152g Change number to 58:022 and title. (see new number for other change)
$58: 153 \mathrm{~g}$ Change number to $58: 125 \mathrm{~g}$ (see new number).
$58: 155 \mathrm{~g}$ Change course number and title. Number to $58: 110 \mathrm{~g}$ (see new number).
$58: 156 \mathrm{~g}$ Change number to $58: 130 \mathrm{~g}$
58:180 Change title and credit and add description. Title from "Theory Survey" to Theory Survey for Graduates. Credit from 3 to 2 hrs . Description: Review of theoretical principles and methods of analysis. Required of all graduate students who do not demonstrate adequate proficiency as a result of the Graduate Theory Diagnostic Examination.

58:210 New course. Advanced Form and Style Analysis I-2 hrs.
Application of analytic techniques to music from plainsong through Baroque. Emphasis on era and composer style delineation. Prerequisite: 58:180 or passing score on Graduate Theory Diagnostic Examination.

58:211 New course. Advanced Form and Style Analysis II -- 2 hrs.
Continuation of 58:210. Classical period to the present. Prerequisite: 58:180 or passing score on Graduate Theory Diagnostic Examination.

157 58:225 Change course number and add to prerequisite. (Advanced Arranging) Change number from 58:253 to 58:225. Prerequisite: 58:125 or consent of instructor.

58:252 Change course number and prerequisite. Number to $58: 122 \mathrm{~g}$ (see new number for other changes).

58:253 Change course number and add to prerequisite. Number to 58:225 (see new number for other changes).

59:010 Change course number and description. (History of Music I) Change number from 59:170 to 59:010. Description: Survey of musical trends from all eras. Early Christian era through Bach (1750). Prerequisite: 52:020.

59:011 Change course number and description (prerequisite remains). (History of Music II). Change number from 59:171 to 59:011. Description: Continuation of 59:010. Classical period to the present.

59:110g Change course number, title, and prerequisite. Delete description. Number from $59: 270$ to $59: 110 \mathrm{~g}$. Title from "Music History--Renaissance" to Music Literature -- Middle Ages to Renaissance. Prerequisite: 59:010 and 59:011.

59:111g Change course number, title, and prerequisite. Delete description. Change number from 59:175g to $59: 111 \mathrm{~g}$. Title from "Music History -- Baroque" to Music Literature--Baroque. Prerequisites: 59:010; 59:011.

59:112g New course. Music Literature -- Classic-Romantic - 3 hrs.
Prerequisites: 59:010; 59:011.

59:113g Change course number, title, and prerequisite. Delete description. Change number from $59: 176 \mathrm{~g}$ to $59: 113 \mathrm{~g}$. Title from "Music Literature-Contemporary" to Music Literature-20th Century. Prerequisites: 59:010; 59:011.

59:120g Change course number, title, and description. Change number from $59: 178 \mathrm{~g}$ to $59: 120 \mathrm{~g}$. Title from "Performance Literature in__ to Performance Literature for _. Description: Study of music literature available for a specific instrument or voice. A combination ensemble-literature course for the performer. Areas available: Brass, Woodwinds, Strings, Organ, Percussion, Piano (I-II), Voice (I-II).
$59: 130 \mathrm{~g}$ Change course number, credit, and description. (History of Opera) Change number from $59: 174 \mathrm{~g}$ to $59: 130 \mathrm{~g}$. Credit from 2 to 3 hrs. Description: Historical development of the opera from its inception (c. 1600) to the present.
$59: 131 \mathrm{~g}$ New course. History and Literature of Large Choral Forms -- 3 hrs.
Development of large choral forms from the Renaissance to the present. Emphasis on the Mass, cantata, oratorio, passion, anthem, and contemporary uses of the chorus.
$59: 135 \mathrm{~g}$ New course. History of Church Music - 3 hrs.
Church music from the Early Christian Church through the present day.
$59: 140 \mathrm{~g}$ New course. History and Literature of the Orchestra -- 3 hrs .
Orchestral literature from mid-18th Century to present; emphasis on structure of the symphony as a form and the growth of the orchestra as an ensemble.
$59: 141 \mathrm{~g}$ New course. History and Literature of Chamber Music -- 3 hrs.
Music for small ensembles, from Renaissance to present. Emphasis on music by major composers for the traditional combinations: string quartet, trios, sonatas, wind ensembles and miscellaneous ensembles with keyboard.

59:142g New course. History and Literature of Wind Band -- 3 hrs.
Growth and development of wind music from Gabrieli to present.

## $59: 150 \mathrm{~g}$ Change course number, title, and description, and add prerequisite. Number from

 $59: 172 \mathrm{~g}$ to $59: 150 \mathrm{~g}$. Title from "Music History--American" to American Music. Description and prerequisite: History and literature of our nation's music from 1620 to the present. Prerequisite: 59:011.59:151g New course. Music of World Cultures -- $\mathbf{3}$ hrs.
Study of non-Western music: Africa, Islam, India, Indo-China, Indonesia, China, and Japan, and the role of music in these cultures.

59:170 Change number and description. Change number to 59:010 (see new number for changes). (History of Music I)

59:171 Change course number and description, change prerequisite. Change number to 59:011 (see new number for other changes) (Hist. of Music II)

59:172g Change course number, title, description, and prerequisite. Change course number to $59: 150 \mathrm{~g}$ (see new number). (Music History--American)

59:174g Change course number, credit and description. Change number to $59: 130 \mathrm{~g}$ (see new number). (History of Opera)
$59: 175 \mathrm{~g}$ Change course number, title, \& prerequisite. Delete descrp. Change number to $59: 111 \mathrm{~g}$ (see new number). (Music Hist.--Baroque)

59:176g Change course number, title, \& prerequisite. Delete descrp. Change number to $59: 113 \mathrm{~g}$ (see new number) (Music Lit.--Cont.)

59:178g Change course number, title, and description. Change number to 59:120g (Performance Lit. in -- (see new number).

59:270 Change course number, title, and prerequisite. Delete description. Change number to $59: 110 \mathrm{~g}$ (see new number). (Music Hist.-Renaissance)

59:285 Add listing of "Common Number" - Readings in Music History -- 1-3 hrs. Prerequisite: consent of Graduate Coordinator in Music.

59:289 Add listing of Common Number. Seminar in Music History -- 3 hrs. Musicological research into the various areas of music. May satisfy departmental requirement of 52:221.

## PHILOSOPHY AND RELIGION

--To be inserted immediately following the listing of the RELIGION MAJOR as an "informational" statement:

## PRE-PROFESSIONAL PROGRAM --

The Department of Philosophy and Religion, as part of a state university, does not not promote any specific religion, nor try to convert its students from one sectarian viewpoint to another. It does, however, offer a pre-theological program for those students planning to undertake graduate work at a university or a theological seminary. Utilizing the requirements and the electives of the Religion Major (above), the program provides courses in the major religions, Eastern and Western, and offers a series of studies of the Bible and biblical faiths. Electives in the program stress the cultural and analytical background needed by professionals wishing to help persons in the settings of the modern age and its problems. Specific electives appropriate for each student's professional objectives will be selected in consultation with a pre-professional adviser assigned by the Head of the Department.

## SPEECH

50:187g New course. Contemporary Public Address -- 3 hrs.
Critical study of subject with emphasis on important American statesmen after World War II.

50:196g New course. Methods of Teaching Theatre in High School -- 2 hrs.
Theory for teaching theatre in the secondary school; practical experience in techniques for teaching, directing, and relating theatre to high school students. Highly recommended before student teaching. Credit also as course in education for student whose major is speech. Prerequisite: consent of instructor and 12 semester hours of speech.

50:230
Add prerequisite: consent of instructor. (Psych. of Speech).
50:283 Change number to 50:289 Seminar in Teaching Speech.
50:285 Change number to 50:289 Seminar in Public Address.
50:287 Change number to 50:289 Seminar in Interpretation.
50:288 Change number to 50:289 Seminar in Scene Design.

## SPEECH PATHOLOGY AND AUDIOLOGY

51:111g Change course title, credit, and description, and drop " $\mathrm{g}^{\prime}$ ". Title from "Practicum in Phonetics in Speech Pathology and Audiology" to Phonetics in Speech Pathology. Credit from 2 to 3 hrs. Description: Study of International Phonetic Alphabet with emphasis on symbols for transcription of defects in articulation and voice as well as ethnic differences. Includes both lecture and lab practice sessions.
$51: 150 \mathrm{~g}$ Drop "g" (Clinical Processes I, II, III).

51:230 New course. Language Training Strategies -- 3 hrs. Competencies necessary for treating the language delayed/deficient child. Emphasis on specific strategies as indicated in the literature. Successful completion of course requires demonstration of proficiency in each method covered. Prerequisites: 51:106; 51:127.

51:296 New course. Clinical Supervision in Speech Pathology -- 2 hrs.
Approaches to clinical supervision; objectives and methods; practicum to be arranged concurrently. Prerequisite: consent of instructor. Enrollment will be limited to six students selected by instructor from those graduate students in their last semester's work in the department.

## INTERDISCIPLINARY PROGRAMS

This interdisciplinary minor is offered under the jurisdiction and general supervision of the Dean of the College of Humanities and Fine Arts.

Required:62:128 Images of Women in Literature -- 3 hrs.
96:146g History of Women in the United States -. 3 hrs .
40:106g Psychology of Human Differences or
31:057 Human Relationships and Sexuality)

Electives: a minimum of 12 semester hours from a selected list of courses chosen in consultation with an adviser from the Women's Studies Advisory Board

12 hours
21 hours

## THE GRADUATE PROGRAM

## Master of Arts Degree --

Major in English Linguistics (restatement of major) -- to read:
This major is offered on both the thesis and non-thesis options for a minimum total of 30 hours on either option. If a student has taken either of the stated required courses or their equivalents, he may substitute electives for these hours.

Required: 63:254;63:256.
The remainder of the 30 hours shall be selected by the student in consultation with his adviser. Such electives may include appropriate course work from outside the discipline (e.g., foreign languages, philosophy, mathematics, anthropology, psychology, speech pathology, or literature).

Native speakers of English must demonstrate proficiency in another language by earning at least a "C" grade in a second semester, college-level language course or by passing a specially designed examination. Native speakers of other languages must register for 63:105 in order to demonstrate their proficiency in English; however, at the end of the first week of the term, the instructor may release the student from this requirement. Work taken to satisfy the language proficiency requirement does not count toward the 30 semester hours required to complete the program.

It is recommended that all students acquire some knowledge of at least one of the following: computer programming, mathematical logic, or set theory.

Major in German (restatement of major)
-Change list of "required" courses to read:
Required: 74:201 or equivalent; 74:203 or equivalent; 74:250.
(All other statements and requirements, including hours, remain the same.)

Major in Music (restatement of major: divide present major into two separate listings:
"Major in Music" and "Major in Music Education" under an "Area" head)

## MUSIC

(Students wishing to take courses for graduate credit in the Department of Music, or wishing to pursue a degree program in this department, should consult with the Graduate Coordinator for Music Programs prior to registration for any course. Detailed information concerning requirements and procedures will be provided, and specified evidence of previous accomplishments will be reviewed.)

Two major programs of study lead to the Master of Arts degree in music: the major in Music Education which serves the needs of public school teachers who wish to continue their training at a higher level, and the major in Music which involves a course of study comprising a minimum of specialization and a maximum of curricular flexibility.

An applicant for a graduate degree program in the Department of Music should possess the baccalaureate degree in music or a demonstrated equivalent. The student should have attained a high degree of proficiency in one or more of the following areas: performance, theory-composition, music education, or music history.

A prospective major must take a written diagnostic examination in the areas of theory and music history, and in the area of claimed competency, if different from the above le.g., piano, brass, or woodwind instruments). This examination normally is taken immediately prior to initial registration as a graduate student. If necessary, a student will take remedial courses to make up any deficiency; such remedial courses will not count toward degree requirements.

In addition to other requirements, the student must pass an oral comprehensive examination which preferably will take place after completion of course work required for the degree. Students who do not complete a recital or thesis must also pass a written examination prior to the oral examination.

Students on either major program may elect Professional Education courses from either Professional Core A or Professional Core B to fulfill electives. By including 27:227 or 27:228 and $27: 220$ or $27: 221$ in the graduate program, and with four years of prior successful teaching experience, the candidate becomes eligible for a certificate endorsement in music supervision. In this case, 57:240 should be included in the student's program.

Major in Music Education (new title)
This major is offered on both the thesis and non-thesis options for a minimum total of 30 hours.

Required: 52:221; 58:210; 58:211; 57:220;
Music history and literature (59:xxx) -- 6 hrs.;
Music methods (at least 4 hours at 200-level) -- 6 hrs.
Required for thesis option: 52:299 -- 6 hrs.
A maximum of four semester hours of applied music ( $54: x \times x$ ) may be used as electives on the non-thesis option. The non-thesis option requires the completion of a research paper.

Major in Music (restatement of major)
This major is offered on both the thesis and non-thesis options for a minimum of 30 hours. Students selecting the non-thesis option will write a research paper.

Required: 52: 221; 58:210; 58:211;
Music history and literature (59:xxx) -- 6 hrs.; Applied music ( $54: x \times x$ ) -- 4 hrs.

Electives: Music (all areas except applied music) -- 8 hrs . Other electives as approved by the department -- 6 hrs.

Major in Spanish (restatement of major)
.-Change list of "required" courses to read:
Required: one 200-level literature course -- 3 hrs . one 200 -level linguistics course -- 3 hrs . one 100 -level culture and civilization course - 3 hrs.

The remainder of the program will be determined by the student's needs in consultation with his adviser.

Major in Speech Pathology (restatement of major)
Specific statement of "required" and "elective" courses to read:
Required in speech pathology: *51:010; *51:105; *51:106; *51:111; *51:125;
*51:135; *51:150; *51:155; *51:156; *51:165; *51:195; *51: 196; 51:130; 51:140; 51:240; 51:241; 51:255; 51:275; 51:295; 51:289 (Differential Diagnostics).

Required in physics: *88:088.
The student, in consultation with his adviser, must choose electives to meet the American Speech and Hearing Association requirements in basic and related areas.

In addition to the above courses, the student must complete 150 clock hours of supervised clinical practice. Neither Professional Core A nor Core B is required on this major.
(All other statements and requirements, including total hours, remain the same.)
Master of Music Degree (new master's degree)
(Students wishing to take courses for graduate credit in the Department of Music or wishing to pursue a degree program in this department should consult with the Graduate Coordinator for Music Programs prior to registration for the course. Detailed information concerning requirements and procedures will be provided, and specific evidence of previous accomplishments will be reviewed.)

The Master of Music Degree is a professional degree designed to prepare the graduate for (1) a college or secondary school teaching career, (2) a performance career as a professional musician or composer, or (3) further graduate work at the doctoral level. The following majors are offered:

## Composition <br> Music History <br> Performance

An applicant for a graduate program in the Department of Music should possess the baccalaureate degree in music or a demonstrated equivalent. The student should have attained a high degree of proficiency in one or more of the following areas: performance, theory-composition, music education, music history. A prospective major must take a written diagnostic examination in the areas of theory and music history, and in the area of claimed competency if different from the above (e.g., piano, brass, or woodwind instruments). This examination normally is taken immediately prior to initial registration as a graduate student.

In addition to the common regulations and requirements applicable to all master's degree programs, the following are required for admission for the specific major:

Composition majors: portfolio and, if possible, tape recordings of compositions.
Music History majors: scholarly paper.
Performance majors: in-person audition (a tape recording would be accepted if the in-person audition would pose undue hardship).

Successful completion of an oral comprehensive examination is required of all students in this degree program. This examination will normally take place after the candidate has completed the course work required for the degree.

If a student is required to take remedial courses to make up any deficiency in preparatory work, those courses may not be counted toward degree requirements.

Requirements for Majors

## MAJOR IN COMPOSITION (new major)

This major is available on the non-thesis option only. The program requires a minimum of 30 semester hours and the satisfactory completion of a final comprehensive examination as well as a composition recital acceptable to the student's recital committee.

Required: 52:221 Music Research and Bibliography - 2 hrs.
58:210 Advance Form and Style Analysis I-2 hrs.
58:211 Advanced Form and Style Analysis II -- 2 hrs .
Applied composition (54:xxx) -- 8 hrs.
Music literature (59:xxx) - 6 hrs .
Electives: 10 hours primarily in the areas of Music Literature and Theory.

## MAJOR IN MUSIC HISTORY (new major)

This major requires a minimum of 30 semester hours and the completion of a thesis in music history.

Required: 52:221 Music Research and Bibliography -- 2 hrs.
58:210 Advanced Form and Style Analysis I -- 2 hrs.
58:211 Advanced Form and Style Analysis II -- 2 hrs.
59:299 Research (for thesis) -- 6 hrs.
Music literature ( $59: x \times x$ ) -- 13 hrs.
Electives: 5 hours (maximum of two hours may be in applied music).

## MAJOR IN PERFORMANCE (new major)

This major is available on the non-thesis option only and requires the completion of a minimum of 30 hours.

Required: 52:221 Music Research and Bibliography -- 2 hrs.
58:210 Advanced Form and Style Analysis I - 2 hrs.
58:211 Advanced Form and Style Analysis II -- 2 hrs.
$59: 120 \mathrm{~g}$ Performance in literature for _- $2-4 \mathrm{hrs}$.
Music literature (59:xxx) - 6 hrs.
Applied music (54:xxx) -- 10 hrs .
Electives: 4-6 hours primarily in the areas of Music Literature and Theory.
Additional requirements:

1. One public recital acceptable to student's recital committee.
2. Two successful applied jury examinations.
3. Demonstrated proficiency in foreign languages (voice major).

## COLLEGE OF NATURAL SCIENCES

## BIOLOGY

Plan C (formerly under "Plan B")
INDIVIDUALIZED PROGRAM: A biology major may elect, with the assistance of his adviser, for formulate an individualized plan of study for achieving his major goals. A plan stating the student's long-range educational objectives and specifying how the objectives will be met must be submitted by the student, with his signature and that of his adviser, to a departmental review committee for final approval. Any changes in an approved plan are by student petition. The student must contact the department for this option.

Total minimum hours required
55 hours

## BIOLOGY MAJOR (restatement of Plan B, and addition of Plan C)

Plan B - Changed from "Individualized Program" to read:

Plan B: Quality Control Bio-Technician Emphasis (new plan)


84:180g New course. Management of Recreational Land -- 3 hrs.
Ecological principles applied to design, development and management of natural areas, parks, and wildlands. Prerequisites: Life series or equivalent, and 84:168. Discussion, 2 periods; lab., 2 periods.

84:235 New course. Topics in Cytology - 2 hrs.
Recent research information on ultrastructure and function of eucaryotic plant and animal cells. Topics will vary with each offering. Prerequisites: 84:128; and 84:114 or $84: 122$. Discussion, 2 periods.
84:242 Change title and description. Title from "Comparative Physiology" to Advanced Physiology. Description to read: Organ systems studied with emphasis on mammalian or comparative physiology. Prerequisites: Zoological background, an animal physiology course, and $84: 128$ or $86: 150$. Physics recommended. Discussion, 3 periods; lab., 3 periods.

84:251 Change title and description. Title from "Experimental Microbiology" to Microbial Ecology. Description to read: Experimental design, instrumental methods of analysis used in investigating the ecology and physiology of bacteria and fungi. Student must complete one research project. Prerequisite: 84:151 or equivalent. Discussion, 2 periods; lab., 4 periods.
84:255 New course. Physiological Ecology -- 3 hrs.
Chemical responses of plant individuals to variables in their environment and the concomitant influences on their morphological and behavioral evolution. Prerequisites: $84: 168$; and any two of $84: 122,84: 128$, or $84: 151$. Discussion, 2 periods; lab., 2 periods.

## CHEMISTRY

## CHEMISTRY MAJOR--TEACHING (restatement of major)

--Change required "Physics" to read:
Physics -- 88:054 and 88:056; or 88:130 and 88:131
8 hours
(All other requirements, including hours, remain the same.)
CHEMISTRY MAJOR-A (restatement of major)
--Change required "Physics" to read:
Physics -- 88:054 and 88:056; or 88:130 and 88:131
8 hours
(All other requirements, including hours, remain the same.)

## CHEMISTRY MAJOR-B (restatement of major)

First list of "required" courses (all chemistry) remains the same -including total hours (37).

Change other two statements to read:

| Physics - 88:054 and 88:056; or 88:130 and 88:131 | 8 hours |
| :---: | :---: |
| * Additional advanced study, including at least 1 hr . of independent study or laboratory research in chemistry | 8 hours |
| Total hours | 53 hours |

(*To be selected with the approval of the adviser and consistent with the guidelines for undergraduate programs in chemistry of the American Chemical Society.)
-Change accompanying advisory statement to read:
Note: The mathematics prerequisites for one or more of the above courses are $80: 060$ and $80: 061$. A reading knowledge of a foreign language, especially German, is strongly recommended, particularly for those planning advanced study in chemistry. Knowledge of computer programming is also desirable.

This major will meet the requirements specified by the American Chemical Society for an approved undergraduate major.

CHEMISTRY MINOR--Teaching and Liberal Arts (restatement of minor creating two separate minors)

New programs to read:

## CHEMISTRY MINOR-Teaching

Required: 86:044; 86:046 or 86:048; 86:193 . . . . . . . . 10 hours
Electives in Chemistry beyond 86:046 or 86:048
10 hours
20 hours

## CHEMISTRY MINOR

| Required: 86:044; 86:046 or 86:048 |
| :--- |
| Electives in chemistry beyond 86:046 or $86: 048$. . . . . . . . . . . $\quad 8$ hours |
| 12 hours |
| 20 hours |

86:132g Change description (Quantitative Analysis) to read:
Theory, techniques, and calculations of volumetric and gravimetric analysis. Statistical treatment of data. Classical analytical procedures supplemented by instrumental techniques. Prerequisite: 86:046 or 86:048. Discussion, 2 periods; lab., 6 periods.

86:151g Change prerequisites (Biochemistry II) to read: Prerequisites: 86:125; 86:140. Prerequisites or corequisites: 86:134 or 86:135; 86:141.

86:160g Change prerequisite (Radioisotype Techniques) to read: Prerequisite: 86:132.
86:242 Change prerequisites (Adv. Anal. Chem.) to: Prerequisites: 86:132; 86:140; and approval of department head.

## EARTH SCIENCE

EARTH SCIENCE MAJOR--Teaching (restatement of major)
-.Add advisory statement to "Electives in Earth Science**" to read:
"Electives in Earth Science** (numbered 100-level or above) . . ."
(All other requirements, including hours, remain the same.)
GEOLOGY MAJOR (restatement of major)

| Required: 80:046 or 80:060; 86:046 or 86:048; 88:045 | 12 hours |
| :---: | :---: |
| Required: $87: 031 ; 87: 035 ; 87: 129 ; 87: 132 ; 87: 136 ; 87: 142$ | 23 hours |
| Required: Summer Field Course* ${ }^{*}$ - . . | 5 hours |
| Electives in geology (numbered 100-level or above) | 6 hours |

> *Summer field course requirement to be met by credit earned at a field camp approved by the department.
> Recommended electives: 80:060; 80:061; 84:034.

87:033 Add to description (of Geology Spring Field Trip): "May be repeated twice for credit. May not be applied to a major in the department. Only 2 hrs. may be applied to the minor.

## INDUSTRIAL TECHNOLOGY

INDUSTRY MAJOR (restatement of major)
To first line of "required" courses add: 33:187, and increase these required hours to
-Change " $15: 050$ " to " 15 : $153^{\prime \prime}$ " (number changed by Business Dept.)
Reduce "electives in Industrial Technology" from 15 hours to
12 hours
--Change **footnote to read:
., **Students should complete electives (12 hours) in
(All other requirements and total hours remain the same.)
TECHNICAL INSTITUTE EDUCATION MAJOR (restatement of major)
Under "Required Concentration" -- revisions in two "concentrations"
Mechanical Design: delete 33:141 and 33:162; and add 33:143 and 33:144.
Mechanical Technology : delete 33:130 and add 33:133.
(All other requirements, including all hours, remain the same.)
TRADE AND INDUSTRIAL EDUCATION MAJOR (restatement of major)
Under "Required Concentration" -- revision of one "concentration"
Mechanical Drafting: delete 33:036 and 33:185; and add 33:143 and 33:144.
(All other requirements and hours remain the same.)

Add two courses to "Required core" and increase hours; to read:
Required core: 33:005; 33:020; 33:032; 33:187; 15:153
12 hours
Delete "15:050 (now 15:153)" from all "Concentrations" and add to "Required core"; decreases hours of "Required Concentration" -- read:

Required Concentration*
31-38 hours
Revise two (2) Cencentrations:
Mechanical Design: delete 33:141 and 33:185; and add 33:143 and 33:144.
Mechanical Technology: delete 33:130; and add 33:113.
(All other requirements and total hours remain the same.)

181 33:112g Change title, credit, and description. Title from "Technical Graphics" to Product Research and Development. Credit from 4 to 3 hrs. Description to read: Application of principles and process of design and drafting to research and development of manufactured products. Prerequisite: 33:111 or consent of instructor.

33:113g Change title, credit, and description. Change title from "Technical Design" to Manufacturing Design Graphics. Credit from $\mathbf{3}$ to $\mathbf{4}$ hrs. Description: Application of contemporary drafting practices used in manufacturing industries; includes specification of quality controls, product analysis and revision procedures, basic computer graphics, and tool design. Prerequisite: 33:111 or consent of instructor.

33:130g Change credit and description (Metal). Credit from 4 to 2 hrs. Description: Advanced instruction in one of the following: Oxy-acetylene welding, electric arc welding, foundry, sheet-metal, metal spinning, ornamental iron, forging and heat treating, and art metal and enameling. Prerequisite: 33:011 or consent or instructor. May be repeated in different areas but credit toward degree may not exceed 8 hours.

33:143g Change title, credit, description, and prerequisite. Title from "Machine Tool Technology $I^{\prime \prime}$ to Planning Manufacturing Systems. Credit from 3 to 4 hrs . Description: Designing and engineering the production system for an identified product; product analysis and testing, process engineering, tool designs, quality control, plant layout, and material handling systems. Prerequisite: 33:016 or consent of instructor.
$33: 144 \mathrm{~g}$ Change title, credit, description, and prerequisite. Title from "Machine Tool Technology ${ }^{\prime \prime \prime}$ to Tooling Up for Manufacturing. Credit from 3 to 4 hrs . Description: Fabricating and setting up tooling, production processes, quality control, and material handling systems for a production run; includes methods engineering, work measurement, and marketing goods. Prerequisite: 33:016 or consent of instructor.
$33: 187 \mathrm{~g}$ Change title, description and prerequisite. Title from "Co-operative Technology" to Applied Industrial Supervision and Management. Description: Investigation of industrial supervision and management; includes directed field study in industry. Prerequisite: 15:153 or consent of instructor.

33:196g New course. Industrial Safety -- 2 hrs.
Introduction to field of industrial safety with emphasis on compliance with Occupational Safety and Health Act (OSHA) in industrial and educational environments.

33:214 Change title and description, and add prerequisite: Title from "Problems in Teaching Industrial Arts" to Problems in Teaching Industrial Education. Description: Educational problems selected according to interests and needs of students. Prerequisite: consent of instructór. Research Projects in Industrial Technology. Description: Problems will involve investigation, application, demonstration, and reporting of research findings in specialized areas of industrial technology. May be repeated for a total of 9 semester hours. Prerequisite or corequisite: 33:292 or consent of instructor.

Drop course. (Research Projects in Technology -- 3 hrs.)
33:292 Change title and add descrition: Title from "Industrial Arts Research Methods" to Research Methods in Industrial Technology. Description: Principles of methods and evaluation of research in industrial technology. Individual exploration of possible projects or thesis topics.

## MATHEMATICS

184 Change first line of first full paragraph to read: "The following courses may not be used to satisfy any requirements in the Mathematics Major--"

## MATHEMATICS MAJOR-Teaching (restatement of major)

Add 80:160 and 80:165 to required list; decrease additional electives to 12 hours; and add "Topology" to "available areas" -- to read:

Required: Completion of 80:062
Required: 80:160; 80:165; 80:190
Electives: 12 additional hours chosen from the following list of courses; and must include courses in either algebra or geometry and at least one additional area:

Algebra: 80:161; 80:162
Analysis: 80:147; 80:148; 80:156
Computer Science: 80:171; 80:176; 80:177; 80:184; 80:187
Geometry: 80:155; 80:166; 80:189
Mathematical Logic: $80: 169 ; 80: 179 ; 80: 182 ; 80: 188$
Probability and Statistics: 80:153; 80:174; 80:175
Topology: 80:167; 80:168
Total program hours will depend on the student's background and will vary from 23 to 43 hours. A student beginning with 80:045 will have a minimum program of 43 hours.

MATHEMATICS MAJOR (addition of new "Plan" under this Major)

## Plan C

Required: Completion of 80:062
Required: 80:147; 80:148; 80:160; 80:161; 80:167
Electives: at least 10 additional hours to be chosen from the following areas:

## Algebra: 80:162

Analysis: 80:148; 80:156
Geometry: 80:155; 80:165; 80:166; 80:189
Mathematical Logic: $80: 169 ; 80: 179 ; 80: 182 ; 80: 188$
Probability and Statistics: 80:174;80:175
Topology: 80:168
The total program hours will depend on the student's background and will vary from 28 to 48 hours.

This plan is primarily for the student who wishes to pursue graduate study in mathematics with the possible intent of attaining the doctoral degree.

MATHEMATICS MINOR-Teaching and Liberal Arts (restatement of minor - Split into two separate minors and revise programs accordingly; increase of 4 hours, each.)

## MATHEMATICS MINOR-Teaching

A minimum of 20 hours required as follows:
Required: 80:060; 80:190; and 80:160 or 80:165
11-15 hours
Electives: courses from 80:061; 80:062 (or 80:063 for majors in a physical science); $80: 144 ; 80: 149 ; 80: 180 ; 80: 181$; the courses listed in the seven areas of the Mathematics Major--Teaching; and (at most) one of the following: 80:070, 80:080, and 80:172; to make a minimum total of

20 hours
MATHEMATICS MINOR
A minimum of $\mathbf{2 0}$ hours is required as follows:
Required: 80:060
Electives: course from 80:061; 80:062 (or 80:063 for majors in a physical science); $80: 120 ; 80: 144 ; 80: 149 ; 80: 163$; $80: 180 ; 80: 181$; the courses listed in the seven areas of the Mathematics Major (Plan A); and (at most) one of the following: 80:070, 80:080, and 80:172 to make a minimum total of

20 hours
80:048 New course. Condensed Calculus -- 5 hrs.
Survey of analytic geometry and elementary calculus with emphasis on applications. May not be applied to Mathematics major or minor. Prerequisite: 80:045 or equivalent.

80:164g New course. COBOL - 3 hrs.
Basic features of COBOL and report generating languages examined; emphasis on data processing techniques and file concepts. Includes file structures, access methods, file maintenance, sorting, information retrieval, report generation. Concepts illustrated by business-type examples. Prerequisite: 80:070 or 15:080 (formerly 15:167) or equivalent.

## PHYSICS

PHYSICS MAJOR-A (restatement of major)
Change "Required physics" to read:
Required physics: 88:130; 88:131;88:169
13 hours
Change "Electives in Physics" to read:
Electives in physics: 100-level (excluding 88:193); should include at least one course from 88:136, 88:166, 88:167, $88: 172$, and at least one from $88: 152,88: 154,88: 161$, 88:170, 88:175
(All other statements and hours, including total hours, remain the same.)

## PHYSICS MAJOR--B (restatement of major)

Change "Electives in physics" to read:
Electives in physics: 100-level (excluding 88:193), should include at least two courses from $88: 136,88: 166,88: 167$, 88:172

23 hours
Change last paragraph of program advisory statement to read:
"Student planning graduate study in physics should include electives in the theoretical courses $88: 166,88: 167,88: 172$, and . . "'
(All other statements and hours, including total hours, remain the same.)

88:135g Drop course. (Analytical Mechanics -- 3 hrs .)
88:162 Drop course. (Electric and Magnetic Fields I -- 3 hrs .)
88:163g Drop course. (Electric and Magnetic Fields II - 3 hrs.)
88:164g New course. Holography Laboratory and Lasers -- 1-2 hrs.
Basic physics and principles of the laser; use of the laser for holographic studies and applied physics. Lab course with lectures. Stresses readily appljed information and techniques including equipment characteristics and safety. Prerequisite: knowledge of wave motion at an elementary physics level, or permission of instructor. Lab.-discussion, 2-4 periods.

88:166g New course. Mechanics and Electromagnetic Fields I-4 hrs.
Dynamics of a system of particles. Motion of particles in a central force field. Collision problems. Fields (gravitational, electric, and magnetic) and associated energies. Lagrange's equations, Maxwell's equations, and their applications. Mathematical methods (vector analysis, differential equations, special functions, and complex variables) developed as needed. Prerequisites: 80:062 or 80:063; 88:131.

88:167g New course. Mechanics and Electromagnetic Fields II -- 4 hrs . Continuation of 88:166. Prerequisite: 88:166.

## SCIENCE

SCIENCE MAJOR--Teaching (restatement of major)
To read:
This major is intended especially for students desiring to teach science in the junior high school

*Students with sufficient high school preparation should consult with departments for proper beginning course. Students may test out of beginning course and substitute another course from that department.

Students seeking certification in particular disciplines should contact the Dean of the College of Natural Sciences for these guidelines.

82:195 New Course. Science Teaching Colloquium -- 1 hr .
Presentation and discussion of current topics related to elementary and secondary science teaching, including scientific and educational research, teaching philosophies, innovative teaching techniques, etc. Course consists of 14 meetings over a two-semester period. For Science (Teaching) majors, to be taken prior to student teaching.

## THE GRADUATE PROGRAM

## Master of Arts Degree

MAJOR IN TECHNOLOGY (restatement of major)

- Revision of each of the three emphases:

Vocation-Technical Teaching -- delete from required list: 27:252, $33: 184,33: 194$, and $33: 273$; and add: $33: 214$ and $33: 270$ ( 6 hours). To read:

Required: 27:250; 33:214; 33:270 ( 6 hours); $33: 292 ; 33: 297 ; 80: 170$.
Vocational-Techical Education Supervision and Administration -- delete from required list: 33:273; and add 33:270. To read:

Required: $15: 101$ or $15: 105 ; 15: 160 ; 15: 260 ; 20: 214 ; 27: 252 ; 33: 226$; 33:270; 33:292; 80:170.

Industrial Supervision and Management -- delete from first required list: 15:105 and 33:272; and add $33: 187,33: 270$, and $33: 292$. To read:

Required: 80:170; 15:210; 15:260; 33:187; 33:270; 33:202; 33:299.
(Total hours and other requirements remain the same.)

## ALPHABETIC ORDER

Accounting
Anthropology
Art
Biology
Business Education
Chemistry
Earth Science
Economics
Educational Media
Educational Psychology
Elementary and Junior High
English
French
Geography
German
History
Home Economics
Humanities
00
33
66
70
76
35
63
15
13
80
25
52
54
59
57
58
18
Individual Studies
Industrial Technology ..... 33
Journalism ..... 35
Languages ..... 37
Library Science ..... 39
Linguistics ..... 40
Management ..... 45MarketingMathematics
51Measurement and Research
Music
Music, Applied ..... 57
Music Literature ..... 58
Music Methods ..... 59
Music TheoryOffice Administration
62Philosophy
Physical Education ..... 64
Physical Education, Men
Physical Education, WomenPhysics
Political Science
Psychology ..... 72 ..... 72
Reading
Religion ..... 74
Russian ..... 77
Safety Education
School Administration ..... 80
Science ..... 82
Secretarial
Social Foundations ..... 86
Social Science ..... 87
Social Work ..... 88
Sociology ..... 90
Spanish
Special Education ..... 94
Speech ..... 96
Speech Pathology ..... 97
Student Personnel Services ..... 98
Teaching

29
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## CODE NUMBER ORDER

00 Individual Studies
12 Accounting
13 Marketing
14 Secretarial
15 Management
17
18
20
21
22
23
24
25
26
.

Business Education
Office Administration
Educational Psychology
Elementary and Junior High
Special Education
Reading
Educational Media
Measurement and Research
Social Foundations
School Administration
Teaching
Student Personnel Services
Safety Education
Home Economics
Industrial Technology
Library Science
Physical Education
Physical Education, Men
Physical Education, Women
Psychology
Social Work
Speech
Speech Pathology
Music
Music, Applied
Music Methods
Music Theory
Music LIterature
Art
English
Linguistics
Religion
Philosophy
Journalism
Humanities
Languages
French
German
Latin
Russian
Spanish
Mathematics
Science
Biology
Chemistry
Earth Science
Physics
Social Science
Economics
Political Science
History
Geography
Sociology
Anthropology


[^0]:    ${ }^{1}$ Includes $\$ 26.50$ per student per semester for student activities and specified building and debt service fees.
    ${ }^{2}$ Includes $\$ 11.00$ per student for student activities and specified building and debt service fees.

[^1]:    **In meeting the 20-hour elective requirement, student opting either "Administration" or "Urban Recreation" must take at least two semester hours from each of the following three areas: Therapeutic, Program Supervision, and Outdoor Recreation.

[^2]:    *First registration for $\mathbf{3}$ hours only.

[^3]:    8:172(g). Introductory Quantum Mechanics- $\mathbf{3}$ hrs Solutions of Schrödinger equation for several systems. Super-position of states. Matrix formulation. Physical interpretations. Discussion, 3 periods. Prerequisite: 80:061; 88:131; 88:169.

[^4]:    Department of Curriculum and Instruction
    Educational Media
    Elementary Education
    Reading
    Special Education
    Department of Educational Psychology and Foundations
    Educational Psychology

[^5]:    **A single date following the title indicates the beginning of service at this university. If two dates are given, the first indicates the incumbent's first appointment to a position and the second (in parentheses) the beginning of service in present capacity.

[^6]:    Robert M. Andrews-B.A., University of Northern lowa; M.A., University of Iowa Assistant Professor of Teaching Coordinator of Student Teaching-1969 (1972)
    Whyne O. Aurand-B.A.. University of Northern Iowa; M.Mus., University of Michigan; Ed.D., University $_{\text {I }}$ ( of Illinois Associate Professor of Teaching: Music-1951 (1969)
    C. Murray Austin-B.A., M.A., Ph.D., University of Pennsylvania Associate Professor of Geography and Regional Science-1973
    George G. Ball-B.S., M.A., Kent State University; Ed. D., University of Wyoming Professor of Education and Psychology-1958 (1963)
    Thomas M. Barry-B.M.Ed., M.M., University of Colorado at Boulder Instructor in Music (Oboe)-1973
    Jackson N. Baty-B.A., Stanford University; M.A.. Ed.S., University of Northern Iowa Assistant Professor of Education-1971 (1974)
    Kenneth Baijghman-B.A., Laurence University; M.A., Ph.D., University of Chicago Assistant Professor of English-1972
    Diane L. S. Baum-B.A., M.A., University of Northern Iowa Assistant Professor of Mathematics-1964 (1968)
    Russell N. Baum-B.Mus., M.Mus.. Eastman School of Music, University of Rochester Professor of Piano-1938 (1973)
    Randall R. Bebb-B.A., University of Northern lowa; M.A., Ph.D., Universitv of lowa Professor of Teaching Coordinator of Student Teaching-1947 (1969)
    *Caryl R. Becker-B.M.Ed., Oberlin College Conservatory; M.Mus., New England Conservatory of Music Assistant Professor of Music (Voice)-1969 (1973)
    James Edward Becker-B.A., Cornell College; M.A., University of Paris (Sorbonne) Assistant Professor of Teaching: Foreign Language-1970
    Judy Markham Beckman-B.A., M.A., University of Northern Iowa Assistant Professor of Teaching: Language Arts-1969 (1975)
    Mary Green Beckman-B. Mus., Oberlin Conservatory of Music; M.Mus., Cleveland Institute of Music Associate Professor of Theory and Harp-1947 (1967)
    Roy Richard Behrens-B.A., University of Northern Iowa; M.A., Rhode Island School of Design Assistant Professor of Art-1972 (1975)
    Thomas R. Berg-B.S., M.A.E., Ph.D., Ohio State University Assistant Professor of Education-1975
    James L. Berry-B.A., Creighton University; M.A., University of Northern Iowa Adjunct Assistant Professor of Physical Education for Men-1973
    Maribelle O. Betterton-B.A., M.A., University of Northern Iowa Instructor in Teaching: Elementary Education-1973
    C. Gregory Bereskin-B.A., M.A., University of Cincinnati Instructor in Business-1975
    M. Roger Betts-B.A., University of Northern Iowa; M.A.E., Ball State University; Ed.D., Arizona State University
    Assistant Professor of Industrial Technology-1975
    Hugo L. Beykirch-B.A., M.A., Ph.D., Wayne State University Assistant Professor of Audiology-1974
    Jane Birkhead-B.A., M.A., University of Missouri Professor of Voice-1941 (1966)
    Clifford L. Bishop-B.A.. Western College of Colorado; M.A., University of Denver; Ed.D., University of Colorado Professor of Education and Psychology-1950 (1956)
    James T. Blanford-B.S., Central Normal College; M.S., Ed.D., Indiana University Professor of Accounting-1946 (1956)
    Mary E. Blanford-B.A., Central Normal College, Indiana; M.S., Indiana University Assistant Professor of Business Education-1961 (1966)
    David R. Bluhm-B.A., Princeton University; B.Th., Princeton Theological Seminary; M.A., Ph.D., University of Pittsburgh Professor of Philosophy and Religion-1954 (1958)
    Emil W. Bock-B.Mus., M.Mus., Northwestern University; Ph.D., University of Iowa Professor of Violin-1939 (1961)

[^7]:    *on leave

[^8]:    *on leave

[^9]:    *on leave

[^10]:    V. Michael Lahey-B.S., Florida Atlantic University; M.A., Ed.D., University of Georgia Associate Professor of Education-1975
    Joseph F. Lamberti. Jr.-B.S.Ed., Edinboro State College; M.A., San Fernando Valley State College; Ed.D., University of Florida
    Associate Professor of Education
    Coordinator of the Curriculum Laboratory-1972 (1974)
    William C. Lang-B.A., Yankton College; M.A., Ph.D., University of Iowa Professor of History-1949 (1952)
    Geraldine E. LaRoque-B.S., M.A., University of Minnesota; Ph.D., Stanford University Professor of English-1972
    James P. LaRue-B.S., Southeast Missouri State College; M.A., Colorado State College of Education; Ed.D., Pennsylvania State University
    Professor of Industrial Technology-1956 (1971)
    Kenneth Lash-B.A., Yale University; M.A., University of New Mexico Professor of Art Head of the Department of Art-1970
    Richard T. Lattin-B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa Professor of Education-1947 (1969)
    Agnes Lebeda-B.A., Northwestern Oklahoma State University; M.S., Oklahoma State University; Ph.D., University of Minnesota
    Professor of General Business-1953 (1963)
    *Key Ton Lee-B.S., Union College, Nebraska; M.A., Andrews University, Michigan; Ph.D., University of Oklahoma Associate Professor of Education-1967 (1972)
    Robert T. Lembke-B.S., M.S., Mankato State College; Ed.D., University of South Dakota Associate Professor of Education-1974
    Pamela J. Lewis-B.A., University of Northern Iowa Instructor in Teaching: Language Arts-1974
    Donald C. Little-B.M., Peabody Conservatory of Music, Baltimore; M.M., Northwestern University Instructor in Music (Brass Instruments)-1973
    Thomas L. Little-B.A., Macalester College; M.A.E., University of Mississippi; Ed.D., Memphis State University Assistant Professor of Education-1973
    Bonnie Helen Litwiller-B.S.Ed., M.S.Ed., Illinois State University; M.A.T., Ed.D., Indiana University Associate Professor of Mathematics-1968 (1972)
    John C. Longnecker-B.A., M.A., University of Northern Iowa Instructor in Mathematics-1966
    Fred.W. Lott-A.B., B.S., Cedarville College, Ohio; M.A., Ph.D., University of Michigan Professor of Mathematics Assistant Vice-President, Academic Affairs-1949 (1971)
    Jonathan J. Lu-B.Ed., Taiwan Normal University; B.D., Asbury Theological Seminary, Kentucky; M.A., Ohio State University; Ph.D., University of Washington
    Associate Professor of Geography-1973
    William Ernest Luck-B.S., M.S., Stout State University; Ed.D., Oklahoma State University Professor of Industrial Technology Director of Technical Education-1962 (1970)
    Gene M. Lutz-B.S., M.S., Ph.D., Iowa State University Assistant Professor of Sociology-1973
    H. Lewis Lynch-B.S., M.Ed., University of Nebraska; Ed.D., University of Wyoming Associate Professor of Teaching Coordinator of Student Teaching-1951 (1969)
    Howard William Lyon-B.A., M.S., University of Iowa Assistant Professor of Chemistry-1956 (1959)
    James G. Macmillan-B.A., Western Washington State College; Ph.D., The Ohio State University Assistant Professor of Chemistry-1972
    David V. McCalley-B.A., M.A., University of Northern lowa Assistant Professor of Biology-1966 (1968)
    Clifford G. McCollum-B.S., M.A., Ed.D., University of Missouri Professor of Biology Dean of the College of Natural Sciences-1949 (1968)
    Wayne L. McCracken-B.A., University of Northern Iowa Instructor in Teaching: Elementary Education-1975

[^11]:    *on leave

[^12]:    23:130 (Reading for Adolescents) may be taken for credit on this major.

