University of Northern Iowa
UNI ScholarWorks

UNI Programs and Courses Catalogs

8-1986

## University Catalog 1986-1988

University of Northern Iowa

Copyright © 1986 University of Northern Iowa
Follow this and additional works at: https://scholarworks.uni.edu/uni_catalogs
Part of the Higher Education Commons

Let us know how access to this document benefits you

## Recommended Citation

University of Northern Iowa, "University Catalog 1986-1988" (1986). UNI Programs and Courses Catalogs. 19.
https://scholarworks.uni.edu/uni_catalogs/19

This Book is brought to you for free and open access by UNI ScholarWorks. It has been accepted for inclusion in UNI Programs and Courses Catalogs by an authorized administrator of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

## THE UNIVERSITY OF NORTHERNIOWA



## University of Northern Iowa Bulletin

## University Catalog

## 1986-1988

## Contents

University Calendar. ..... 3
General Information ..... 5
The University and lts Programs ..... 5
Academic Structure ..... 6
College of Education ..... 6
College of Humanities and Fine Arts ..... 6
College of Natural Sciences. ..... 8
College of Social and Behavioral Sciences ..... 8
School of Business ..... 8
Other Educational Opportunities ..... 8
Admission Requirements ..... 13
General Admission Standards ..... 13
Northern Iowa Requirements ..... 14
Preparation for Undergraduate Admission ..... 15
Admission Requirements for Graduate Students ..... 15
Application Procedures ..... 16
Transfer Students. ..... 16
Resident-Nonresident Student Classification ..... 17
Enrollment and Registration Procedures ..... 21
Enrollment ..... 21
Registration ..... 21
Fees and Financial Aid ..... 23
Student Costs ..... 23
Financial Aid and Student Employment. ..... 24
Scholarships. ..... 25
Student Life ..... 29
Orientation ..... 29
Housing ..... 29
Academic Advising Services. ..... 29
Office of Learning and Instruction ..... 29
Student Health Services ..... 30
Counseling Services. ..... 30
Career Services ..... 30
Placement Services ..... 30
Foreign Student Affairs ..... 31
Student Activities and Honors ..... 31
University Facilities and Educational Services. ..... 35
Facilities. ..... 35
Educational Services ..... 37
Degree Requirements ..... 41
Undergraduate Curricula ..... 41
General Education Program ..... 49
Program Certificates ..... 50
Requirements for Graduation ..... 51
Graduate Curricula ..... 53
Academic Regulations ..... 55
Major Requirements ..... 63
Departments and Undergraduate Programs ..... 63
Interdisciplinary Majors and Minors ..... 103

The Graduate Program ..... 107
Admission ..... 107
Assistantships. ..... 110
Master's Degree Programs ..... 110
Master of Arts Degree ..... 114
Master of Arts in Education Degree ..... 125
Master of Business Administration Degree ..... 129
Master of Music Degree. ..... 130
Specialist Degree ..... 133
Specialist in Education Degree ..... 133
Doctor of Education Degree ..... 136
Doctor of Industrial Technology Degree ..... 138
Courses of Instruction ..... 143
Course Descriptions. ..... 145
State Board of Regents ..... 209
Administrative Staff. ..... 209
Emeritus Faculty ..... 217
Instructional Staff ..... 220
Index ..... 235
University Map ..... 249


## UNI Academic Calendar 1986-1988

## Summer Session, 1986 -

| June | 6 | Fri., Registration, 8 a.m.-4 p.m. |
| :--- | :--- | :--- |
| June | 9 | Mon., Instruction begins, 7:30 a.m. |
| July | 3 | Thur., First four-week session ends. |
| July | 4 | Fri., Legal holiday. |
| July | 7 | Mon., Second four-week session begins. |
| Aug. | 1 | Fri., Summer sessions end. |
| Aug. | 1 | Fri., Commencement, 7:30 p.m. |

Fall Semester, 1986 -
Aug. 21-22 Thur.-Fri., Orientation and registration, 8 a.m.-4 p.m.
Aug. 25 Mon., Instruction begins, 8 a.m.
Sept. 1 Mon., Legal holiday (Labor Day).
Oct. 18 Sat., End first half semester, 12 noon.
Oct. 20 Mon., Begin second half semester, 8 a.m.
Nov. 25 Thes., Thanksgiving vacation begins, 10 p.m.
Dec. 1 Mon., Instruction resumes, 8 a.m.
Dec. 15-19 Mon.-Fri., Final examinations.
Dec. 19 Fri., Semester ends.
Dec. 20 Sat., Commencement.

## Spring Semester, 1987 -

Jan. 15-16 Thurs.-Fri., Orientation and registration, 8 a.m.-4 p.m.
Jan. 19 Mon., Instruction begins, 8 a.m.
Mar. 7 Sat., End first half semester, 12 noon.
Mar. 9 Mon., Begin second half semester, 8 a.m.
Mar. 14 Sat., Spring vacation begins.
Mar. 23 Mon., Instruction resumes, 8 a.m.
May 11-15 Mon.-Fri., Final examinations.
May 15 Fri., Semester ends.
May 16 Sat., Commencement.

Summer Session, 1987 -
June 8 Mon., Registration, 8 a.m.-4 p.m.
June $\quad 9$ Tues., Instruction begins, 7:30 a.m.
July 2 Thur., First four-week session ends.
July 3 Fri., Legal holiday.
July $\quad 6$ Mon., Second four-week session begins.
July 31 Fri., Summer sessions end.
July 31 Fri., Commencement.

## Fall Semester, 1987 -

Aug. 20-21 Thur.-Fri., Orientation and registration, 8 a.m. -4 p.m.
Aug. 24 Mon., Instruction begins, 8 a.m.
Sept. 7 Mon., Legal holiday (Labor Day).
Oct. 17 Sat., End first half semester, 12 noon.
Oct. 19 Mon., Begin second half semester, 8 a.m.
Nov. 24 Thes., Thanksgiving vacation begins, 10 p.m.
Nov. 30 Mon., Instruction resumes, 8 a.m.
Dec. 14-18 Mon.-Fri., Final examinations.
Dec. 18 Fri., Semester ends.
Dec. 19 Sat., Commencement.
Spring Semester, 1988 -
Jan. 14-15 Thur.-Fri., Orientation and registration, 8 a.m.-4 p.m.
Jan. 18 Mon., Instruction begins, 8 a.m.
Mar. 5 Sat., End first half semester, 12 noon.
Mar. 7 Mon., Begin second half semester, 8 a.m.
Mar. 19 Sat., Spring vacation begins.
Mar. 28 Mon., Instruction resumes, 8 a.m
May
May
9-13 Mon.-Fri., Final examinations.
13 Fri., Semester ends.
14 Sat., Commencement.


# General Information 

This catalog is published for students and other persons who want to know more about the University of Northern Iowa. Its purpose is to communicate as objectively and completely as possible what the university is and what it does. The catalog is presented in sections to give a total view of Northem Iowa as well as the detailed information required for informed decision making.

## The University and Its Programs

## History

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." The university offers a broad curriculum at both the undergraduate and graduate levels. Five conventional baccalaureate degrees are offered: the Bachelor of Arts, the Bachelor of Fine Arts, the Bachelor of Music, the Bachelor of Science, and the Bachelor of Technology.

Also available is the Bachelor of Liberal Studies, an "external" degree offered in cooperation with the University of Iowa and Iowa State University. On the graduate level, seven degrees are offered: the Master of Arts, the Master of Arts in Education, the Master of Business Administration, the Master of Music, the sixth-year Specialist and Specialist in Education degrees, the Doctor of Industrial Technology degree, and the Doctor of Education degree.

The University of Northern lowa has grown from its 1876 original campus site of 40 acres with one building - Central Hall, which originally housed orphaned children of Civil War soldiers - until it now embraces more than 40 principal buildings on a campus of 740 acres, with a faculty of about 580 members and a total enrollment of about 12,000 . In addition to its physical growth, the university continues to support programs that reach into the wider community, including the UNI Center for Urban Education (UNI-CUE) which is located in the heart of the urban area of Waterloo, lowa. 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.

## Location

The University is located in Cedar Falls, Iowa, which has a population of approximately 35,000 , with the Cedar Falls-Waterloo greater metropolitan area having a population of more than 110,000 . Together with the University of Iowa and Iowa State University of Science and Technology, the University of Northern lowa is governed by the State Board of Regents.

## Mission

Established as the Iowa State Normal School, the institution was renamed the Iowa State Teachers College in 1909 and under this title attained a national reputation and status as a leading institution in the field of teacher education. By enactment of the Iowa General Assembly on July 5,1961 , the name of the college was changed to the State College of Iowa and degree programs were added for those not planning to teach. The change to the University of Northern Iowa was effected on July 1, 1967, following enactment by the Iowa General Assembly on the recommendation of the State Board of Regents. Its current statement of mission was approved by the Board of Regents in 1978:


#### Abstract

"The University of Northern lowa at Cedar Falls is recognized as having a mission of sufficient scope to enable it to be a distinguished arts and sciences university with an outstanding teacher education program. It provides leadership in the development of programs for the pre-senvice and in-service preparation of teachers and other educational personnel for schools, colleges, and universities. The institution offers undergraduate and graduate programs and degrees in the liberal and practical arts and sciences, including selected areas of technology. It offers preprofessional programs and conducts research and extension programs to strengthen the educational, social, cultural, and economic development of lowa and the larger community. Evolution from a state college to a university entailed a broadening of offerings, development of more specialized undergraduate and graduate programs, and greater emphasis on research and public professional services.


"It is imperative that the quality of the University's instruction be maintained and enhanced through increasingly strong emphasis on: 1) general or liberal education as the most essential ingredient for the undergraduate student, 2) the central importance and complementary relationship of teaching and research, 3) enrichment of instruction through extensive clinical, laboratory and field experiences, and independent study, and 4) development of the life of the University community itelf as an effective educational force. In order to serve students of all ages and to be responsive to their needs and preferences and to the needs of society, it is imperative that the University offer a variety of programs in such areas as liberal arts, arts, business, social work, and technology. It will offer no major programs in agriculture, architecture, dentistry, engineering, forestry, hospital administration, law, pharmacy, medicine, or veterinany medicine.
"In the area of teacher preparation the University must remain at the forefront of developments in the field of education and be prepared to offer instruction in new areas required by society. Furthermore, UNI should be more than merely responsive to changing needs and interests of its students and society. It must provide leadership in education innovations, programs, and research.
"Future programs will be determined by the continuing study of existing programs and of developing needs. Programs will be curtailed or eliminated when the assessment of need and resources indicates that resources could better be devoted to other programs. The University approaches the addition of new programs with considerable caution. Generally, new programs are fashioned out of existing programs in response to developing needs. However, if the University is to remain vital, it must consider at the appropriate time the development of some new programs that fall within its general mission and meet the new needs of students and of society."

University status brought increasing 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 graduate program is given in detail beginning on page 107.

## Memberships and Accreditation

The University of Northern lowa is a member of the American Association of State Colleges and Universities (AASCU), the American Association of Colleges for Teacher Education (AACTE), and the Council of Graduate Schools in the United States. The university is accredited through the master's degrees, the specialist's degrees and the doctorate (Doctor of Education and Doctor of Industrial Technology) by the North Central Association of Colleges and Secondary Schools (NCA). The university is also accredited by the National Council for Accreditation of Teacher Education (NCATE). The programs of the university are accredited by the following professional accrediting agencies: the National

Association of Schools of Music, the National Association of Schools of Art, the National Council of Social Work Education, the American Speech-Language-Hearing Association, and the American Home Economics Association. Programs are also approved by the lowa State Department of Public Instruction, the National University Extension Association, and the American Chemical Society. In addition, the University Museum is accredited by the American Association of Museums.

## Academic Structure

The academic structure of the university reflects the continuing changes in higher education and the university's endeavors to meet the educational needs and demands of society.

## College of Education

The College of Education includes seven instructional units and the Office of Student Field Experiences, each concerned with some aspect of professional education in one or more program areas. Programs offered in this college lead to the degrees Bachelor of Arts, Master of Arts, Master of Arts in Education, Specialist in Education, and the newly approved Doctor of Education (Ed.D.). All of these programs have a career orientation, and most are preparatory to careers in education as a teacher, school library media specialist, counselor, administrator, or supervisor; the exceptions are in closely related fields - undergraduate community health, community recreation, therapeutic recreation majors and graduate majors in counseling and communications media, and health.

The various units which comprise the college are described below: Curriculum and Instruction: Early childhood education, elementary education, middle schooljunior high education, reading and language arts, safety education, educational media and communications media, and education of the gifted. The department also operates the Reading Clinic and a day care center.
Educational Administration and Counseling: Graduate programs at the master's and specialist's levels and Ed.D. intensive study areas in educational administration and counseling.
Educational Psychology and Foundations: Educational psychology, measurement and evaluation, and social foundations of education. The department is responsible for the Common Professional Sequence required of all prospective teachers, and operates the Educational Clinic in conjunction with its state certification program in school psychology. The department has two master's graduate degree programs and one specialist's graduate degree program and an Ed.D. intensive study area in school psychology.
School of Health, Physical Education, and Recreation: Health, physical education, recreation, graduate studies, General Education, and Campus Recreation. The school also offers instructional programs in athletic training, coaching, and dance, and operates university cardiac rehabilitation, wellness, and sports medicine programs. Extensive intramural, open recreation, and club sports programs are available within the Campus Recreation Division.
Library Science: Library orientation and school library media specialist. Special Education: Undergraduate emphases for early childhood, elementary, and middle/junior high school majors and for secondary teaching majors. Graduate programs include emphases in severe/ profoundly handicapped, preschool handicapped, elementary and secondary mentally and emotionally disabled, plus administration and consultant programs and an Ed.D. intensive study area in special education.
Student Field Experiences: This office is responsible for administering the student teaching component and other field experiences of UNI's undergraduate teacher education program. A statewide network of cooperating school centers offers a variety of student teaching sites in
urban, suburban, and rural school systems. Each center is staffed with a resident coordinator who is a member of the UNI faculty and who is responsible for administering the student teaching program within the center and for supervising student teachers on a regular basis. Carefully selected supervising teachers who possess special qualities, teaching skills, and levels of competence also provide continuous classroom supervision for the student teachers.
Teaching: The Department of Teaching is responsible for the operation of the Malcolm Price Laboratory School which is an integral part of the university's teacher education program and serves three basic functions: it provides a direct-experience laboratory for all undergraduate and graduate teacher education students; it operates as a center for research, experimentation, and curriculum development; and, it provides leadership to the elementary and secondary schools of Iowa and the nation through publication, consultation, and a variety of in-sewice programs and activities. A comprehensive instructional program is offered for school pupils in nursery-kindergarten through grade twelve, including programs for special education and talented/gifted students.

Since its establishment in 1876 as the lowa State Normal School, the University of Northern Iowa has maintained its affirmed commitment to the support of excellence in teacher education. 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 acknowledged by the university in organizing and defining teacher education as an alluniversity function.

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

The college is involved in continuing education, working closely with school personnel throughout the state on curriculum projects, surveys, and other 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 service, 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.

Department faculty 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.

## College of Humanities and Fine Arts

The College of Humanities and Fine Arts includes the departments of Art, Communication and Theatre Arts, Communicative Disorders, English Language and Literature, Modern Languages, and Philosophy and Religion, the School of Music, and the two public radio stations housed within Broadcasting Services.

The College of Humanities and Fine Arts offers both graduate and undergraduate degree programs. In addition, it serves its own students and students across the campus with an extensive set of general education, elective and service courses.

At the undergraduate level, the B.A. is offered in all of the departments within the College of Humanities and Fine Arts. The B.FA. (Bachelor of Fine Arts) is offered by the Department of Art and the


School of Music. Additionally offered is the B.M. (Bachelor of Music) which emphasizes excellence in performance.

Included in the diverse major and minor programs found in college departments both at the undergraduate and graduate levels are: Art, English, English Linguistics, Teaching English to Speakers of Other Languages (TESOL), Journalism, French, Cerman, Spanish, Russian, Music, Philosophy, Religion, Communications (Speech), Public Relations, Radio-TV, Theatre, Speech/Language Pathology and Audiology (graduate level). In addition, there are programs offered cooperatively by the Departments of English Language and Literature and Modern Languages that combine in various ways Comparative Literature, English, Modern Languages, and TESOL. The School of Music offers majors in Music Education, Performance, and Theory-Composition, Music History, and Conducting which lead to the Master of Music (M.M.). The Department of Art has a major in Art and the School of Music a major in Music Theatre available under the Bachelor of Fine Arts degree. Recent additions to graduate and certificate programs of the college include a new major in Translation on the master's degree as well as certificate programs in bilingualism, translation and interpretation, and international commerce (the latter in cooperation with the School of Business). Efforts are currently underway to develop a new program in cooperation with the School of Business which would join an undergraduate major in the arts or humanities with the Master of Business Administration (MBA) at the graduate level.

The College of Humanities and Fine Arts also offers interdisciplinary undergraduate programs in Humanities and Russian Area Studies and shares responsibility for the American Studies and Latin American Studies majors. A pre-theological curriculum is available either on the Religion major or as a minor in combination with another major.

Additionally, the College of Humanities and Fine Arts sponsors a very wide variety of co-curricular activities for students of college grade in all
majors, for talented high school students, and for the community at large. Some examples of these activities include the Tallcorn Music and Theatre festivals, the Annual High School Art Scholarship Competition, and a number of others. These activities, of course, are in addition to the many recitals and ensemble performances of School of Music groups as well as the dramatic performances staged by Theatre UNI and UNI Lyric Theatre. The fine and communicative arts are richly represented in the services offered to our colleagues and students, to the Cedar Falls/ Waterloo community, and to the state of Iowa.

Administratively housed in the College of Humanities and Fine Arts are UNI's two separately programmed public radio stations. KUNI-FM serves the Cedar Falls/Waterloo, Cedar Rapids, and Iowa City areas at 90.9 on the dial. KUNI can also be heard at 98.3 in Dubuque and at 94.5 in the Quad Cities. This station broadcasts quality music and public affairs features for twenty-four hours each day. KHKE-FM, at 89.5 on the dial, serves the Cedar Falls/Waterloo metro area with a fine arts and music format. Students majoring in Radio-TV in the Department of Communication and Theatre Arts serve as interns for the two stations.

The College of Humanities and Fine Arts prepares its graduates for living and for earning in a rapidly changing society and economic milieu. While some of our students are aiming at teaching careers in the arts or the humanities, other students, in Communicative Disorders, for example, are moving toward careers as professional therapists. A number of our majors will become professional performers as musicians, artists, or actors. The largest number of students in the College of Humanities and Fine Arts, however, encounter us through their general education courses - in the humanities, in literature or writing courses, in religion and philosophy courses, in Introduction to Theatre, in a language course or in some other elective. Human achievements in the liberal and fine arts, we believe, are appropriate and useful studies for all the students of the university.

## 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 Computer Science, and Physics.

Majors and minors are available in all departments on both teaching and liberal arts programs leading to the Bachelor of Arts degree. The departments of Biology, Chemistry, Earth Science, and Physics have majors leading to the Bachelor of Science degree. In addition, students may major in science on both programs; this is an interdepartmental major and is offered under the general jurisdiction and supervision of the Dean of the College.

Since science education does involve the cooperation of a number of departments, a science education faculty functions in providing and promoting this education. The science education faculty is comprised of individuals from various departments and acts as a mini-department. A chairperson coordinates its activities and signs approvals.

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 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 degree of Doctor of Industrial Technology was authorized in 1978.

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. Departmental offices are excellent sources of information about other careers.

The College of Natural Sciences is involved in a number of interdepartmental and intercollegiate projects. An annual Science and Mathematics 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 and Trade and Industrial Education. Faculty members participate in a variety of interdisciplinary courses and programs.

## College of Social and Behavioral Sciences

The College of Social and Behavioral Sciences houses seven instructional units: the Departments of Geography, History, Home Economics, Political Science, Psychology, Sociology and Anthropology, and Social Work. All units share a concern for understanding individuals and societies in their social, economic, and political relationships.

The college is the home of excellent professional programs and significant segments of the university's course offerings in the liberal arts. The college is committed to the principle that all students, including those in career-oriented programs, should 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 Social Work have programs which lead to a Bachelor of Arts - Teaching degree, the requisite degree for certification in a discipline as a secondary school teacher. An interdisciplinary program in Social Science also leads 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 all academic departments. The college also cooperates in intercollegiate/ interdisciplinary programs leading to the Bachelor of Arts degree in American Studies, Asian Studies, European Studies, and Latin American Studies.

Graduate education is an important component of the mission and responsibilities of the college. The Master of Arts degree is awarded in geography, history, home economics, political science, psychology, sociology, and social science.

The primary function of the university and the College of Social and Behavioral Sciences is instruction. Every effort is made to provide diverse educational experiences. In addition to regular classroom activities, students receive individualized instruction through field experiences, internship assignments, and individual study projects. The college offers and participates in many off-campus programs.

Research and service are an integral part of the mission of the college. The college has excellent laboratory facilities, and many members of the collegiate faculty have achieved national recognition in their fields.

Vocational opportunities for graduates exist in a broad spectrum of positions ineducation, public and social sevice, commerce, and industry. Students interested in detailed information on careers may contact departmental offices or the university's Placement Center.

## School of Business

The School of Business houses five instructional departments: Accounting, Economics, Information Management, Management and Marketing. The BA. (Bachelor of Arts) degree is offered by all five departments. Teaching certification in accounting, general business, secretarial/office education and marketing/distributive education is offered by the Department of Information Management. A strong program leading to the M.B.A. (Master of Business Administration) is available at the graduate level. In addition, the School of Business serves many other disciplines throughout the university whose students desire to enroll in one or more of the professional courses offered by the School.

The primary objective of the School of Business is to provide a highquality professional education that will enable its graduates to meet effectively the needs of modern society. In order to achieve this objective, emphasis is placed on rigorous instruction at both the undergraduate and graduate levels. All courses, with only a few exceptions, are taught by full-time faculty members, many of whom have business experience in addition to holding advanced degrees. As a supplement to regular classroom instruction, students can enrich their educational experience by availing themselves to internships, cooperative work programs in industry and government, individual tutorials, and research projects.

Although quality teaching is emphasized, School of Business faculty members engage in a variety of research, both theoretical and practical. In addition, the school is actively involved in the use of computers for both teaching and research. As of September, 1985, the School has 115 microcomputers in place, most of which are for student use. Students also can access the university mainframe computer via a terminal room located in Seerley Hall and at other locations throughout the campus.

While the provision of a first-class professional education is their major concern, faculty members and administrators in the School of Business maintain a strong commitment to student preparation in the arts and sciences. Students are counseled to seek a broad educational experience, particularly at the undergraduate level, and to utilize the full resources of the university in their preparation for happy and productive lives.

## Other Educational Opportunities

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 scheduied 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 Northem Iowa. Registration is made through the Registrar's Office, University of Northern Iowa, Cedar Falls, Iowa 50614.
Iowa Texchers Consernation Camp: A field laboratory program in Iowa conservation problems and environmental education is offered at various locations in lowa each summer. Two three-week courses, each carying three credit hours, are offered: 84:104g Iowa Conservation Problems and 82:230 Environmental Education Program Development. 84:104 is prerequisite to $82: 230$.

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 50614.

Study Abroad: The University of Northern Iowa has several programs for study abroad. These include annual foreign language summer institutes, College of Social and Behavioral Sciences study seminars in Europe, a winter study program in Mexico, and a continuing exchange program with the Universidad de Tarapaća in Araca, Chile. The foreign language programs are conducted in France, Germany, Austria, Spain, and Latin America.

The Summer Institute in Austria (for teachers of German) is a seven-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 seven weeks. Eight semester hours of graduate credit may be earned. Classes will be held at the Teachers' College in Klagenfurt, Austria.

The Summer Institute in Prance (for teachers of French) is a sevenweek program held in Angers and Quimper, 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 Université in Angers, along with field trips and study tours. A two-week period of guided study and travel in Bretagne completes the program.

The Summer Institute in Spain (for teachers of Spanish) is an eightweek program held in Soria, Spain. The institute program provides nine 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 an eight-week program conducted jointly by the three lowa Regents' universities in cooperation with private colleges in Iowa. Classes are held in the Austrian Alps and at the International Hochschulkurse of the University of Vienna. There will be approximately eight weeks of instruction on three levels: intermediate, advanced, and very advanced. 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. There will also be one week of independent travel.


The Regents' Program in France is a seven-week program sponsored jointly by the three Iowa Regents' universities. Students will spend five weeks in Lyon, France, where they will attend courses taught by professors from the universités in Lyon. While in Lyon, students will live with French families. 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 Iowa 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 nine semester hours of credit, study in Burgos, and two weeks of touring other parts of Spain. While in Burgos, the students will live with Spanish families. Independent travel follows completion of course work.

The UNI Portuguese Summer Institute: An eight-week program held in Coimbra, Portugal, the institute is open to students of Portuguese and advanced and native speakers of Spanish. Participants live with Portuguese families, submerged in authentic social and cultural settings. Students will take part in several weekend excursions, as well as a final tour of historical and contemporary Portugal. A total of nine semester hours may be earned; undergraduate and graduate credit are both available. Formal classes in the Portuguese language and cultural studies include beginning through advanced courses.

Social and Behavioral Sciences Foreign Study Tours are sponsored by academic units within the College of Social 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. Participants may enroll for either undergraduate or graduate credit.

The UNI Study Prognam in Mexico is a three-week program held in Colima, Mexico. The program takes place during the semester break (December-January) and provides up to three (3) semester hours of credit. Eligibility requirements are that the student be in good standing, either currently or previously enrolled at UNI, with a minimum of one year of college-level Spanish, or the equivalent. Classes are held at the University of Colima and each participant is housed with a local Mexican family.

The Coordinated Independent Studles Program in Santiago de Campostela, Spain, provides the student of Spanish with the opportunity to study language and culture independently. The program will be structured to fit the student's needs and interests for a maximum of 16 credit hours per semester.

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

Japanese Exchange Program: The University of Northern Iowa has a formal student exchange with Kansai University of Foreign Studies (Kansai Gaidai). The Japanese University is located in Hirakata City, one hour's drive from Osaka. The exchange is at the undergraduate level and is open to qualified students in any field of study. The participants pay room, board, fees and tuition at their home institution and then exchange places. Travel and incidental expenses are the responsibility of the participants.

To be considered for the exchange, a student must have a grade point average of 3.0 or above on a 4 -point scale and must have completed a minimum of 30 credit hours at UNI. The program requires the UNI student to return to the home institution for at least one semester upon completion of the exchange.

Financial aid benefits may apply toward school expenses for the exchange participant. Credits earned in Japan will be recognized by UNI and will apply towards general education requirements or electives. Scholarship, personality, maturity, flexibility and citizenship of applicants are important criteria in the final selection.

Information and application materials are available in Foreign Student Affairs, Gilchrist 172.
Regents Universities Student Exchange Program: University of Northern Iowa students may take courses at either of the other two Regents universities (Iowa State University or the University of Iowa) 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). 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 adequate time for the cooperating universities to complete the processing of the application which enables the student to register. Detailed information and application forms for the exchange program are available from the Office of the Registrar, UNI.
National Student Exchange Program: The University of Northern Iowa is affiliated with the National Student Exchange (NSE), a consortium of state colleges and universities throughout the country that arranges for students to study on various campuses as visiting students. The purpose of the Exchange is to enable participating students to get better acquainted with different social and educational patterns in other areas of the United States. NSE encourages students to experience new life and learning styles, learn more about themselves and others, and broaden their educational backgrounds through specialized courses or unique programs which may not be available at UNI. Students may exchange to one of 65 colleges and universities such as: California State College (Chico), University of New Mexico, University of Idaho, University of Georgia, University of South Carolina and University of Maine (Orono).

Students make exchange preparations through the Individual Studies Office. Sophomores and juniors with at least a 2.75 grade point average may take part in the program for either a semester or an entire year. Summer exchanges are also possible with some institutions. Except for transportation expenses, costs are not greatly different from costs for study at UNI. Financial aid recipients should not be adversely affected by participation in the NSE program.

More information about the National Student Exchange is available at the Individual Studies Office, Baker 59. Students initiate applications there under the advisement of the coordinator of Individual Studies. Applications may be submitted in the fall or spring semester prior to the academic year in which an exchange is planned.
Individual Studies Program: The Individual Studies Program is under the auspices of University Continuing Education and Special Programs. The following program options and course offerings are available through Individual Studies:

- National Student Exchange Program
- Bachelor of Liberal Studies Degree (see page 48)
- Individual Studies major (see page 104)
- General Studies major (see page 11)
- Exploratory Seminars
- Interdisciplinary Readings
- Undergraduate Thesis
- Individual Study Project

The Individual Studies Prograrn at the University of Northern Iowa is open to undergraduate students who want to reach beyond the ordinary limits of a classroom course. Through this program academic credit is awarded for several different kinds of independent and small-group study. Students read and work alone, or in small groups, in search of selfexpression and self-discovery. Although a high grade point average is not required, students are expected to be creative, self-reliant, and ready to accept challenges. Students electing to do independent study within the Individual Studies Program are expected to do sound work of high academic quality. Individual Studies courses are usually used as university electives.

Each semester the Individual Studies Program offers a variety of Exploratory Seminars (00:192) on new, timely and interdisciplinary topics. These courses are generally kept small to insure lively and informal discussion. 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. Undergraduate Thesis $(00: 197)$ is a required course for both Individual Studies majors and students who have been approved by the Individual Studies Board for graduation with "Individual Honors". Individual Study Project (00:198) is an opportunity for research, creative work, or experience-oriented study. Students with a common interest may enroll in Self-Forming Seminar ( $00: 192$, sect. 1) which is a type of group independent study. Individual Studies courses are listed each semester in the Schedule of Classes and may be found by referring to the first page of course offerings. Information about these courses may be obtained from the Individual Studies Office, Baker Hall, UNI.
General Studies Major: The General Studies Major at UNI is a diversified liberal arts major supervised by the Individual Studies Office and is 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 five principal academic units* of instruction, 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 $100-\mathrm{level}$ courses that apply to the General Studies Major are those that normally involve study beyond the introduction to a discipline; however, lowerlevel 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 services a large need in the area of liberal arts education. Specific details for the program are given on page 11.
Division of Continuing Education and Special Programs: 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 senvices 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 Continuing Education and Special Programs are off-campus extension-credit work, noncredit classes, conferences and workshops, and publications. The Continuing Education Unit is also used, and details of this program are available in the division office.

Continuing Education and Special Programs is available to assist organizations and clubs in planning "continuing education" programs suitable to their needs and interests.

For a list of off-campus courses, credit and non-credit, or for imformation on the establishment of such courses, call or write the Office of Continuing Education and Special Programs, University of Northern Iowa, Cedar Falls, Iowa 50614.

Saturday and Evening Classes - As a service persons in the vicinity of Cedar Falls, some resident university courses are scheduled for evening hours and for Saturday morning and include courses for both undergraduate and graduate students.

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 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 Registrar.

Comespondence Courses - For people who find it inconvenient to attend campus classes, opportunities to leam 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 anytime.

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 Dean of Continuing Education and Special Programs. Only by special advance 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 fifty-three correspondence courses are offered by nineteen academic departments. A brochure is available upon request to the Division of Continuing Education and Special Programs.

Extension Classes - Credit class work is offered off campus at many locations throughout the state as 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 a baccalaureate degree may be earned through nonresident credit. Subject to stated Graduate College regulation, credit from extension offerings may be applied to graduate programs if the offerings are appropriate to the student's program needs and are approved by the student's adviser and the department. Two-thirds of the credit required for a graduate degree program must be earned in classes taught by University of Northern Iowa staff.

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


## General Admission Standards of the State Board of Regents

A. Admission of Undergraduate Students Directly from High School

Students desiring admission must meet the requirements in this rule and also any special requirements for the curriculum, school, or college of their choice.

Applicants must submit a formal application for admission, together with a $\$ 10.00$ application fee, and have their secondary school provide a transcript of their academic record, including credits and grades, rank in class, and certification of graduation. Applicants must also submit scores from the American College Test (ACT) or the Scholastic Aptitude Test (SAT), or the equivalent, as determined by each university. The Test of English as a Foreign Language (TOEFL) is required of foreign students whose first language is not English. Applicants may be required to submit additional information or data to support their applications.

1. Graduates of approved Iowa high schools who have the subject matter background as recommended by each university and who rank in the upper one-half of their graduating class will be admitted. Applicants who are not in the upper one-half of their graduating class may, after a review of their academic and test records, and at the discretion of the admissions officers:
a. Be admitted unconditionally
b. Be admitted conditionally.
c. Be required to enroll for a tryout period during a preceding summer session, or
d. Be denied admission.
2. Graduates of accredited high schools in other states may be held to higher academic standards, but must meet at least the same requirements as graduates of Iowa high schools. The options for conditional admission or summer tryout enrollment may not necessarily be offered to these students.
3. Applicants who are graduates of nonapproved high schools will be considered for admission in a manner similar to applicants from approved high schools, but additional emphasis will be given to scores obtained on standardized examinations.
4. Applicants who are not high school graduates, but whose classes have graduated, may be considered for admission. They will be required to submit all academic data to the extent that it exists and achieve scores on standardized examinations which will demonstrate that they are adequately prepared for academic study.

Students with superior academic records may be admitted, on an individual basis, for part-time university study while enrolled in high school or during the summers prior to high school graduation.

In rare situations, exceptional students may be admitted as full-time students to a regent university before completing high school. Early admission to a regent university is provided to serve persons whose academic achievement and personal and intellectual maturity clearly suggest readiness for collegiate level study. Each university will specify requirements and conditions for early admission.
B. Admission of Undergraduate Students by Transfer from Other Colleges

Students desiring admission must meet the requirements in this rule and also any special requirements for the curriculum, school, or college of their choice.

Applicants must submit a formal application for admission, together with a $\$ 10.00$ application fee, and request that each college they have attended send an official transcript of record to the admissions office. High school academic records and standardized test results may also be required. The Test of English as a Foreign Language (TOEFL) is required of foreign students whose first language is not English.

1. Transfer applicants with a minimum of twelve semester hours of graded credit from regionally accredited colleges or universities, who have maintained a " $C$ " average ( 2.00 based on an " $A$ " grade being 4 points) for all college work previously attempted, will be admitted. Higher academic standards may be required of students who are not residents of Iowa.

Applicants who have not maintained a "C" average or who are under academic suspension from the last college attended may, after a review of their academic and test records, and at the discretion of the admissions officers:
a. Be admitted unconditionally.
b. Be admitted conditionally.
c. Be required to enroll for a tryout period during a preceding summer session, or
d. Be denied admission.
2. Admission of students with fewer than twelve semester hours of college credit will be based on high school academic and standardized test records in addition to review of the college record.
3. Transfer applicants under disciplinary suspension wil not be considered for admission until information concerning the reason for the suspension has been received from the college assigning the suspension. Applicants granted admission under these circumstances will be admitted on probation.
4. Transfer applicants from colleges and universities not regionally accredited will be considered for admission on an individual basis taking into account all available academic information.

## C. Transfer Credit Practices

The regent universities endorse the Joint Statement on Transfer and Award of Academic Credit approved in 1978 by the American Council on Education (ACE), the American Association of Collegiate Registrars and Admission Officers (AACRAO), and the Council on Post-Secondary Accreditation (COPA). The current issue of Transfer Credit Practices of Selected Educational Institutions, published by the American Association of Collegiate Registrars and Admissions Officers (AACRAO), and publications of the Council on PostSecondary Accreditation (COPA) are examples of references used by the universities in determining transfer credit. The acceptance and use of transfer credit is subject to limitations in accordance with educational policies operative at each university.

1. Students from regionally accredited colleges and universities. Credit earned at regionally accredited colleges and universities is acceptable for transfer except that credit in courses determined by the receiving university to be of a remedial, vocational, or technical nature, or credit in courses or programs in which the institution granting the credit is not directly involved, may not be accepted, or may be accepted to a limited extent.

Transfer credit from a two-year college will not reduce the minimum number of credit hours required for a baccalaureate degree if that credit is earned after the total number of credit hours accumulated by the student at all institutions attended exceeds one-half of the number of credit hours required for that degree.
2. Students from colleges and universities which have candidate status. Credit earned at colleges and universities which have become candidates for accreditation by a regional association is acceptable for transfer in a manner similar to that from regionally accredited colleges and universities if the credit is applicable to the bachelor's degree at the receiving university.

Credit earned at the junior and senior classification from an accredited two-year college which has received approval by a regional accrediting association for change to a four-year college may be accepted by a regent university.
3. Students from colleges and universities not regionally accredIted. When students are admitted from colleges and universities not regionally accredited, they may validate portions or all of their transfer credit by satisfactory academic study in residence, or by examination. Each university will specify the amount of transfer credit and the terms of the validation process at the time of admission.

In determining the acceptability of transfer credit from private colleges in Iowa which do not have regional accreditation, the regent committee on educational relations, upon request from such institutions, evaluates the nature and standards of the academic program, faculty, student records, library, and laboratories.

In determining the acceptability of transfer credit from colleges in states other than Iowa which are not regionally accredited, acceptance practices indicated in the current issue of Transfer Credit Practices of Selected Educational Institutions will be used as a guide. For institutions not listed in the publication, guidance is requested from the designated reporting institution of the appropriate state.
4. Students from foreign colleges and universities. Transfer credit from foreign educational institutions may be granted after a determination of the type of institution involved and after an evaluation of the content, level and comparability of the study to courses and programs at the receiving university. Credit may be granted in specific courses, but is frequently assigned to general areas of study. Extensive use is made of professional journals and references which describe the educational systems and programs of individuals.
Note: A transfer student who is allowed to enter with a grade point deficiency shall be placed on probation. Transfer students who have no grade point deficiency but whose previous college grade distribution, high school rank, test scores, or major objectives raises questions about probable success may be placed on probation.

## Northern Iowa Requirements

Effective for those students graduating from high school spring term 1984, and after, the following high school subject matter REQUIREMENTS (based on four years of high school) will apply.

1. To meet requirements for admission to the University of Northern Iowa without subject matter restrictions, applicants must present a minimum number of credits/units in English and mathematics. These minimum requirements are:
A. English

Three (3) years of English of which at least one year is identified as composition. Only credits in which a grade of C or better has been earned will apply toward this minimum requirement.
B. Mathematics

Three (3) years of mathematics of which at least one year must be in algebra in which a grade of C or better is eamed.
II. Applicants not meeting minimum subject requirements as listed above may be released from academic restrictions assigned at time of enrollment by giving evidence that they possess a satisfactory level of competence on basis of scores obtained on the ACT Assessment and/or the College Level Examination Program. Academic course requirements listed above will be waived for applicants able to obtain the following scores on standardized examinations.
A. English

1. A student earning a standard score of 25 or above on the English Sub-Test on the ACT Assessment will have satisfied the English admission requirement.
2. A student earning a percentile score of 70 or above on the English Composition Examination of the College Level Examination Program will have satisfied the English admission requirement. This examination requires an essay.
B. Mathematics
3. A student eaming a standard score of 26 or above on the Mathematics Sub-Test of the ACT Assessment will have satisfied the mathematics admission requirement.
4. A student scoring at the 50th percentile or above on the Mathematics Subject Examination "College Algebra-Trigonometry" of the College Level Examination Program will have satisfied the mathematics admission requirement.
III. A student meeting other admission requirements but not meeting subject matter entrance requirements in any manner outlined above will be required to satisfy the restrictions as follows:
A. English
5. A student who ranks in the top-half of his/her high school class must satisfy the requirement by successfully completing a non-credit course in English composition. The student should do this during the first term of enrollment and must satisfy the requirement during the first year of enrollment.
6. A student who ranks in the lower one-half of his/her high school class may be required to limit his/her course schedule to less than the 17 -semester-hour maximum. This student will be required to enroll in a non-credit course in English composition during the first term of enrollment. Upon successful completion of this high school-level course, the schedule load limits will be removed.
B. Mathematics
7. A student who ranks in the top one-half of his/her high school class must satisfy the requirement by successfully completing a non-credit course in mathematics encompassing elementary algebra. The student should do this during the first term of enrollment and must satisfy the requirement during the first year of enrollment.
8. A student who ranks in the lower one-half of his/her high school class may be required to limit his/her course schedule to less than the 17 -semester-hour maximum. This student will be required to enroll in the non-credit course in mathematics during the first term of enrollment. Upon successful completion of this high school-level course, the schedule load limits will be removed.
IV. Students transferring to the University of Northem Iowa before earning credit in English and/or mathematics will be included in policies outlined above. Students with college-level credit in English composition and/or mathematics will be released from the individual subject restrictions.
V. Students graduating from high school before spring term 1984, will be considered exempt from the new English and mathematics requirements.


## Preparation for Undergraduate Admission

For admission to the University of Northern lowa it is recommended that the record of the student seeking admission 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. Three 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 additional work in mathematics.
C. Socin 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. 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. A minimum of three years of study in one language is recommended.
There is a foreign language requirement for graduation from the University of Northern Iowa which may be met by successfully completing three years of high school coursework in one language (two years for 1989 graduates). See "Requirements for Graduation" on page 51 for further details.
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 as preparation 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.

## Admission Requirements for Graduate Students

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 or her application for admission has been approved. See p. 107 for regulations governing admission to graduate study.

A graduate of a college or university that is not accredited may be granted provisional admission at the discretion of the Dean of the Graduate College.

Admission to graduate study does not guarantee admission to candidacy for an advanced degree.

## Application Procedures

Before being permitted to register in the university 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. Individual students may be required to come to the campus for an interview. Those who do not give reasonable promise of success as students at the university may be denied.

Representatives of the university, both on and off campus, encourage or discourage an applicant for admission on the basis of his or her academic 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 admissions decision is not determined or influenced by the age, color, creed, handicap, national origin, race, religion, or sex of the applicant.

This school is authorized under Federal law to enroll nonimmigrant alien students.

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 Director of Admissions, University of Northern Iowa, Cedar Falls, Iowa 50614. 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. Specific information for the admission of students to graduate study is given on page 107.
B. Application Fee. A fee of $\$ 10.00$ must accompany the application. The fee is not refundable, except to Iowans 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.
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 sixor 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 even though credit may not have been earned. 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 direct from high school and transfer students with fewer than 12 semester hours of credit 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 before acting on an application for admission. Students are notified if this is 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 physical handicaps or are expecting health problems provide the Director of the Health Center with information concerning their situation. (See page 30 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.

Students with a recognized baccalaureate degree who are seeking a second baccalaureate degree, teaching endorsements or approvals through UNI recommendation, andlor miscellaneous undergraduate coursework may be admitted through the undergraduate Office of Admissions. These students pay undergraduate fees and may not apply credit earned toward a graduate program.

Specific information for the admission of students to graduate study is given on p. 107.

Classification of residents and non-residents for admission and fee purposes for all students is listed on p. 17.

## 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 curriculum 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 will be examined in terms of the following requirements:
(1) The number of hours required for the degree less the number of hours accepted in 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 many 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 in the major at this university.
(4) Competence in 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. 51).

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 by the student in terms of University of Northem 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 students at any institutions which the students may have attended prior to concluding study 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 requirements.
(6) A maximum of four (4) semester hours of physical education activity credit may be applied toward graduation requirements (except for students majoring/minoring in physical education or recreation).
4. Transfer students on the Bachelor of Arts-Teaching Program must fulfill the following requirements:
(1) All remaining required courses in education 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.

## Classification of Residents and Nonresidents for Admission and Fee Purposes

1. General -
a. A person enrolling at one of the three state universities shall be classified as a resident or nonresident for admission and fee purposes by the Registrar or someone designated by the Registrar. The decision shall be based upon information furnished by the student and other relevant information. The Registrar, or designated person, is authorized to require such written documents, affidavits, verifications, or other evidence deemed necessary to determine the domicile of a student. The burden of establishing that a student is domiciled in Iowa is upon the student.
b. In determining resident or nonresident classification, the issue is essentially one of domicile. In general, the domicile of a person is the person's true, fixed, permanent home and place of habitation. It is the place to which, whenever the person is absent, the person has the intention of returning.
c. Under these regulations, a resident student is defined as one who is domiciled in the State of lowa. A nonresident student is defined as one whose domicile is elsewhere. A student shall not be considered domiciled in Iowa unless the student is in continuous physical residence in this state and intends to make a permanent home in lowa.
d. A person who comes to Iowa from another state and enrolls in any institution of post-secondary education for a full program or substantially a full program shall be presumed to have come to Iowa primarily for educational reasons rather than to establish domicile in lowa. Such a person shall be classified nonresident unless and until such person can demonstrate that the previous domicile has been abandoned and an Iowa domicile established.
e. The following facts and circumstances, although not necessarily conclusive, have probative value in support of a claim for resident certification:
(1) Reside in lowa for twelve consecutive months, and be primarily in activities other than those of a full-time student immediately prior to the beginning of the term for which resident classification is sought.
(2) Reliance upon Iowa sources for financial support.
(3) Domicile in Iowa of persons legally responsible for the student.
(4) Former domicile in the state and maintenance of significant connections therein while absent.
(5) Ownership of a home in Iowa.
(6) Admission to a licensed practicing profession in lowa.
(7) Acceptance of an offer of permanent employment in lowa.
(8) Continuous presence in Iowa during periods when not enrolled in school.
Other factors indicating an intent to make Iowa the student's domicile will be considered by the universities in classifying the student.
f. The following circumstances, standing alone, do not constitute sufficient evidence of domicile to affect classification of a student as a resident under these regulations:
(1) Voting or registration for voting.
(2) Employment in any position normally filled by a student.
(3) The lease of living quarters.
(4) Automobile registration.
(5) Other public records, for example, birth and marriage records, lowa driver's license.

## 2. Facts -

a. A person who is moved into the state as the result of military or civil orders from the government for other than educational purposes, or the dependent of such a person, is entitled to resident status. However, if the arrival of the person under orders is subsequent to the beginning of the term in which the dependent is first enrolled, nonresident tuition will be charged in all cases until the beginning of the next term in which the student is enrolled.
b. A person or the dependent of a person whose legal domicile is permanently established in Iowa, who has been classified as a
resident for tuition purposes, may continue to be classified as a resident so long as such domicile is maintained, even though circumstances may require extended absence of said person from the state. It is required that a person who claims an lowa domicile while living in another state or country will provide proof of the continual lowa dornicile such as (1) evidence that he or she has not acquired a domicile in another state, (2) he or she has maintained a continuous voting record in lowa, and (3) he or she has filed regular lowa resident income tax returns during absence from the state.
c. Ownership of property in Iowa, or the payment of Iowa taxes, does not in itself establish domicile.
d. A student who willfully gives incorrect or misleading information to evade payment of nonresident fees and tuition shall be subject to serious disciplinary action and must also pay the nonresident fee for each term attended.
e. An alien who has an immigration visa may establish lowa domicile in the same manner as a United States citizen.
f. A person who has been certified as a refugee by the appropriate agency of the United States who enrolls as a student at a university governed by the Iowa State Board of Regents may be accorded immediate resident status for tuition purposes where he or she:
(1) Comes directly to lowa from a refuge facility or port of debarkation; or
(2) Has resided in another state for one hundred days or less; and
(3) Provided satisfactory documentation that he or she has an lowa sponsor.
Any refugee not meeting these standards will be presumed to be a non-resident for tuition purposes and thus subject to the usual method of proof establishment of an lowa domicile.
g. Legislation effective July 1,1977 , requires that military personnel who claim residency in Iowa (home of record) will be required to file Iowa resident income tax retums. Military personnel will be expected to have filed Iowa resident income tax returns regularly if resident status is to be maintained.
h. Change of classification from nonresident to resident will not be made retroactive beyond the term in which application for resident classification is made.

## 3. Guidelines -

The following guidelines are used in determining the resident classification of a student for tuition purposes.
a. A student may be required to file any or all of the following:
(1) A statement from the student describing employment and expected sources of support as a student;
(2) A statement from the student's employer;
(3) A statement from the student's parents verifying nonsupport and the fact that the student was not listed as a dependent on tax returns for the past year and will not be so listed in future years;
(4) Supporting statements from persons who might be familiar with the family situation;
b. A financially dependent student whose parents move from Iowa after the student is enrolled remains a resident provided the student maintains continuous enrollment. A financially dependent student whose parents move from Iowa during the senior year of high school will be considered a resident provided the student has not established domicile in another state.
c. A student who was a former resident of lowa may continue to be considered a resident provided absence from the state was for a period of less than twelve months and provided domicile is re-
established. If the absence from the state is for a period exceeding twelve months, resident status would need to be re-established in the same manner as for an initial move to the state, unless evidence can be presented showing that Iowa residence has been maintained according to the established criteria. However, a long-term former resident who returns after an absence of more than one year but less than two years is allowed to regain residency after one year even though a full-time student.
d. A student who has been a continuous student or a member of the military service since graduating from high school and whose parents move to Iowa may become a resident at the beginning of the next term provided the student is dependent upon the parents for major financial assistance.
e. A student who moves to Iowa may be eligible for resident classification at the next registration following twelve consecutive months in the state provided the student is not enrolled for more than eight (8) credits (four credits during the summer session) in any academic year term and provides sufficient evidence of establishment of an lowa domicile.
f. If a person who is engaged in a religious vocation, Peace Corps, Vista, or alternate military service is a native lowan, resident classification is maintained if he or she immediately returns to the state following the assignment. A person who enters such sewice from the state and who is on furlough may be considered a resident if he or she is returning to the field. If service has been terminated prior to returning to lowa, the person would be presumed to be a nonresident if the return to the state was more than twelve months from the termination of the service.

## 4. Review Committee -

These regulations shall be administered by the Registrar or someone designated by the Registrar. The decision of the Registrar or designated person may be appealed to a university review committee. The finding of the university review committee may be appealed to the Iowa State Board of Regents.


# Enrollment and Registration Procedures 

## Enrollment

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 seventeen weeks each. One semester hour of credit is based on one hour of work per week for seventeen weeks.
Summer Sessions - The 1986 and 1987 summer sessions will include a full eight-week session, two four-week sessions, and a number of special sessions and workshops of varying lengths. For information, write the Office of Academic Affairs.
University Offlce Hours - The university's principal administrative offices are open from $8 \mathrm{a} . \mathrm{m} .-\mathrm{noon}$ and $1-5 \mathrm{p} . \mathrm{m}$. on Monday through Friday during the academic year (from the beginning of the fall semester to spring commencement. 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. Specific dates are determined yearly.

Students and their parents are invited to come to the campus to make arrangements for university enrollment. 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:

|  | 1986 | 1987 |
| :---: | :---: | :---: |
| New Year's Day | Wed., Jan. 1 | Thur., Jan. 1Fri., Jan. 2 |
| Memorial Day | Mon., May 26 | Mon., May 25 |
| Independence Day | Fri., July 4 | Fri., July 3 |
| Labor Day | Mon., Sept. 1 | Mon., Sept. 7 |
| Thanksgiving | Thur., Nov. 27Fri., Nov. 28 | Thur., Nov. 26Fri., Nov. 27 |
| Christmas | Thur., Dec. 25Fri., Dec. 26 | Thur, Dec. 24 <br> Fri., Dec. 25 <br> Thur, Dec. 31 <br> (New Year's Day 1988) |

The unversity's academic calendar and holidays are subject to approval by the Board of Regents.

## Registration Procedures

New students, both graduate and undergraduate, cannot register for classes until all requirements for admission to the university are met.

After admission requirements are met, new graduate students will register in accordance with the procedures set out below for former students.

After admission requirements are met, new undergraduate students will receive their registration materials in connection with the orientation program provided for such students. Further instruction for completing registration will be given during the orientation program.


Former Students returning to the university after a semester's or more absence, must file a notice of intent to register for the semester or summer session in which they plan to enroll. 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 the Registrar will assist students eligible under any of these laws and provide the required reports. For additional information, contact the Office of the Registrar, 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' work required for a degree.


## Fees and Financial Aid

## Student Costs

The overall cost for undergraduate students who are residents of lowa is approximately $\$ 5,000$ for the academic year.

| Tuition | $\$ 1,324$ |
| :--- | ---: |
| Board and Room | 1,950 |
| Books, supplies and incidentals | 1,726 |

Non-resident students are charged an additional \$1,870 tuition.
Students are required to provide their own books. Ordinarily the cost for these books will be $\$ 175$ to $\$ 225$ per semester. Students may buy their texts from any source. A student organization operates a book exchange at the beginning of each semester.

## Schedule of Fees

The schedule of fees 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 semester hours during a regular semester of the academic year or summer session.

Effective June 1, 1986<br>Iowa Non-<br>Residents Residents

1. Tuition
A. Fall Semester, Spring Semester, or Summer Session*

| Undergraduate <br> Credit Hours |  |  |
| :---: | ---: | ---: |
| 1 | $\$ 112$ | $\$ 112$ |
| 2 | 112 | 112 |
| 3 | 168 | 168 |
| 4 | 224 | 224 |
| 5 | 280 | 670 |
| 6 | 336 | 804 |
| 7 | 392 | 938 |
| 8 | 448 | 1072 |
| 9 | 504 | 1206 |
| 10 | 560 | 1340 |
| 11 | 616 | 1474 |
| 12 or more | 662 | 1597 |


| Graduate <br> Credit Hours |  |  |
| :--- | ---: | ---: |
| 1 |  |  |
| 2 | $\$ 164$ | $\$ 164$ |
| 3 | 164 | 164 |
| 4 | 246 | 246 |
| 5 | 328 | 328 |
| 6 | 410 | 980 |
| 7 | 492 | 1176 |
| 8 | 574 | 1372 |
| 9 or more | 656 | 1568 |

B. Workshops (xx:033, 133, 233) per credit hour.
(Workshop fees are paid on a credit-hour basis without regard to classification or resident status, and are assessed separately from the above schedule.)
*Includes $\$ 53$ per student for the fall or spring semester or $\$ 23$ per student for summer session for student activities and specified building and debt service fees.

## II. Residence Hall Fees

|  | Academic |  |
| :--- | ---: | ---: |
| Double Occupancy, all <br> residence halls: | Semester | Year |
| Full board and room | $\$ 975$ | $\$ 1950$ |
| No board plan (Bartlett only) | 439 | 878 |

Residence Hall Activity Fee 4 8
Single occupancy, all residence halls: add \$225* to above rates. No breakfast meal board option: deduct $\$ 25^{*}$ from above rates. No weekend meals board option: deduct $\$ 30^{*}$ from above rates. No breakfasts and no weekend meals board option: deduct $\$ 50$ * from above rates.
*Each semester.
Residence hall fees for the summer sessions are approximately as follows: four weeks - $\$ 243.75$; eight weeks - $\$ 487.50$. (These figures are based on double occupancy of rooms.) Halls to be used in a given summer will be designated later and exact fees determined later (see Summer Session Bulletin for specific details).

## III. Other Fees

A. Application for Admission to the University . . . . . . $\$ 10.00$
B. Applied Music

1. Private lessons ( $1 / 2$ hour per week) . . . . . . . . . . . 50.00
2. Private lessons (1 hour per week) . . . . . . . . . . . . 85.00
3. Group (4 or more), per credit hour . . . . . . . . . 30.00
C. Change of Registration (per form - drop/add). . . . 5.00
D. Computer Fee (per semester) . . . . . . . . . . . . . . . . . . 20.00
E. Correspondence (per semester hour) . . . . . . . . . . . 42.00
F. Credit by Examination, University Courses $\quad$ (per course)...................................... 56.00
G. Deferred Tuition Payment (per semester). . . . . . . . . 5.00
H. Diploma Replacement . . . . . . . . . . . . . . . . . . . . . . 5.00
4. Extension or Television Class (per semester hour) . 72.00
J. Lakeside Laboratory (per five weeks) . . . . . . . . . . . . 275.00
K. Late Registration Fee . . . . . . . . . . . . . . . . . . . . . . . 10.00
L. Minimum Fee for Remedial Courses Carrying Zero
Credit Hours, ( $\$ 56$ per contact hour)......... 112.00
M. Open Credit (per project) . . . . . . . . . . . . . . . . . . . . . 112.00
N. Reinstatement Fee (cancelled registration)
During semester . .......................... . . 10.00
During semester . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\quad 10.00$
After semester end . . . . . . . .
5. Replacement of ID Card . . . . . . . . . . . . . . . . . . . . . . 6.00
P. Replacement of Registration Certificate . . . . . . . . . 3.00
Q. Returned Check Charge . . . . . . . . . . . . . . . . . . . . 5.00
R. Transcript of Academic Record
6. One transcript . . . . . . . . . . . . . . . . . . . . . . . . $\quad 3.00$
7. Multiple copies, same order - $\$ 3$ plus $\$ 1$ for each additional copy.
S. Writing Competency Examination (for students not registered)
56.00

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

Fee Payment and Billing - The University billing system for fall and spring semester enrollments offers students the option of paying their tuition fees and the residence hall room and board contracts in one payment at the time of billing or electing to be billed on a deferred payment plan of monthly statements. Under the billing system each university statement will give the student the option of paying the "account balance" at the time of billing or the "minimum amount due" (installment amount). A $\$ 5$ administrative charge will be assessed one time per semester for the installment payment plan. Normally, four installment payments can be made for a regular semester depending on the date of registration. No installment plan is available for the summer session.

Other fees for which students will be billed are parking permits, health center fees, athletic tickets, laboratory fees, married student housing rent, and miscellaneous fees which may occur. These are not included in the installment option.

All billings are mailed directly to the student and not to the student's parents. For billing dates and payment-due dates, refer to the Schedule of Classes for the appropriate session.
Note: Students electing to use the installment payment program to pay university fees are reminded that their registrations will be cancelled if payments are not made to the university Controller's Office by the date specified on the billing. Students may reinstate their registration after cancellation by clearing their indebtedness and paying a $\$ 10$ reinstatement fee within seven days after cancellation. Cancellation of registration for nonpayment of university charges is a form of withdrawal and subject to the same regulations for assignment of grades. Students cancelled after the last day to withdraw without an " $F$ " will receive failing grades unless their registration is reinstated, in which case they will receive the grades earned.

See page 55 for information on withdrawal refunds and fee reduction.

## Financial Aid and Student Employment

The University of Northern Iowa, through the Financial Aids and Student Employment Office, maintains a comprehensive program of financial assistance for its students. The office offers all of the federal student aid programs as well as a large and varied selection of scholarship assistance.

The Financial Aids and Student Employment Office is currently located in 124 Gilchrist Hall. Financial aid counseling is available to students throughout the year. A catalog of scholarships and financial aids delineating the financial assistance available to students at the University of Northern Iowa may be obtained by requesting a copy from our office.

## Federal Student Aid Programs

Pell Grants - Are awards to help undergraduates pay for their education after high school. Maximum awards range up to $\$ 1900$. How much students receive will depend on their Student Aid Index, need, whether they are full-time or part-time students, and the cost of education.
National Direct Student Loans (NDSL) - This is a continuation of the program formerly known as the National Defense Student Loan program. Loans are available yearly to all qualified students. The amount of the loan award is determined by the student's need. Interest at a low rate (currently 5\%) begins 6 months after the borrower is no longer at least a half-time student. Repayment to the university is made in quarterly installments. Deferment while engaged in educational pursuits is available and certain cancellation factors may be used after completion of college.

Supplemental Educational Opportunity Grants (SEOG) - This is a continuation of the program formerly known as the Educational Opportunity Grant (EOG) program. It consists of a federal program of grant aid (not repayable) to deserving students with exceptional financial need. SEOG awards range from $\$ 200$ to $\$ 2000$ per academic year.
College Work-Study - This is a program for full-time students who demonstrate financial need and who require employment to help defray educational expenses. The College Work-Study Program is a federally funded student financial aid program. The purpose of the program is to provide employment opportunities for undergraduate and graduate students. The student must show financial need. The minimum basic pay rate is the existing federal minimum hourly wage rate.
Guaranteed Student Loan - Undergraduates may borrow up to $\$ 2500$ for an academic year. The total amount an undergraduate may have outstanding cannot exceed $\$ 12,500$. Graduate students may borrow up to $\$ 5000$ for an academic year; the total amount any one student may borrow for a combined undergraduate and graduate program may not exceed $\$ 25,000$ in outstanding monies. The interest rate is 8 percent and repayment begins six months after a student ceases to be at least a halftime student.

## Satisfactory Progress Scale

Failure to maintain satisfactory progress for an academic year, during which a student is receiving financial aid, will result in the loss of financial aid eligibilty until the student completes the hours during the next term of enrollment (summer session or semester) while not receiving financial aid. Students who fail, or withdraw from, all their courses in a given semester, while participating in a financial aid program listed below, will not be granted financial aid until they reestablish themselves with satisfactory course completion and grades. Students admitted as unclassified students, and/or part-time students enrolled for less than 12 hours, must pass half of their enrolled hours each semester.

| Freshman | 20 hrs. per academic year |
| :--- | :--- |
|  | 24 hours per academic year plus summer session |
| Sophomore | 24 hrs. per academic year |
|  | 28 hours per academic year plus surnmer session |
| Junior | 26 hrs. per academic year |
|  | 30 hours per academic year plus summer session |
| Senior | 28 hrs. per academic year |
|  | 32 hrs. per academic year plus summer session |

Required remedial course credits will be counted as meeting the above requirements. A completed course is one in which a grade of $\mathrm{A}, \mathrm{B}$, C, D, Cr, or P is assigned. Repeated courses previously completed successfully do not count as meeting the above requirements.

Students not meeting the above requirements may maintain their eligibility for financial aid if they have earned an average of 12 semester hours for each semester of enrollment at UNI. In computing the average hours, the hours earned in the summer session will be included in the total hours; but the summer session will not be included in the number of terms.

Credit hours earned at other institutions, after the initial UNI enrollment, will be included in the total hours when computing the 12 semester hour average.

Until the student is again eligible to receive assistance, no assistance will be awarded from the following student aid programs:

1. Pell Grant
2. Supplemental Educational Opportunity Grant (SEOG)
3. National Direct Student Loan (NDSL)
4. College Work-Study Program (CWSP)
5. Guaranteed Student Loan Program (GSL)


Financial aid eligibility may be regained in the following cases:

1. Student provides documentation of grade change(s) or course completion.
2. Student completes course work in a subsequent academic term or terms at UNI or another accredited college/university making himher eligible for aid consideration in the semester following.
3. Bona fide medical reasons.

Any exceptions to these policies must be made by the office of Financial Aid and Student Employment.
Note: Students are cautioned that the federally-funded student aid programs are constantly changing. Therefore, the eligibility criteria and other factors as set forth in this catalog may change before a new catalog is published. Explanatory materials and application forms for the above scholarships are available in the Financial Aids and Student Employment Office at the university. The preferred deadline for making applications is March 1. Students may complete either the Financial Aid Form or the Family Financial Statement. For further information, please request the bulletin, "Financing an Education at UNI," by writing to the Financial Aids Office, UNI.

## Scholarships

The scholarship program of the University of Northern Iowa may be generally divided into: (1) General University Scholarships, which are available to all undergraduates; (2) General College Scholarships, which are available to all students in particular colleges; and (3) specific scholarships in departments and major fields.
Student Aid Scholarships are in the form of partial remission of fees and are authorized by the lowa State Board of Regents. Applicants must be legal residents of lowa, possess those qualities of character, personality, and academic ability essential for success at the university, and need aid in financing their education.

To aid in determining the financial status of the student and his or her family, every applicant for a Student Aid Scholarship, and/or the applicant's parents, is required to complete a form giving specific information concerning the economic position of the family and/or the student, including assets, liabilities, and income (Financial Aid Form which is part of the scholarship service of the Educational Testing Service, or Financial Statement through ACT).
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 Department Scholarships are awarded annually to high school seniors interested in art as a major. Their value is the same as that of the Student Aid Scholarships. Art Department Scholarships are also available to qualified undergraduate art majors. Interested students should contact the Department of Art.
Lowa Industrial Education Exposition Scholarships are awarded annually to high school seniors or Iowa area school or community college students interested in majoring in one of the seven 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. Army Reserve Officers' Training Corps Scholarships providing tuition, books, laboratory fees, and a tax-free allowance of $\$ 100$ per month are available for four-, three-, and two-year periods. Scholarship recipients
who successfully complete the program could be offered a commission as a Second Lieutenant in the U.S. Army Reserve, National Guard or Active Army.
UNI Athletic Grants-In-Ald Awards are provided by contributions from alumni, gate receipts, businesses 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 her/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, mathematics, earth science, 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.
School of Business - Several scholarships are available in the School of Business. These include:

1. Undergraduate and Graduate - the Irene Thompson Scholarship, open to full-time students, based on academic achievement.
2. Undergraduate - open only to accounting, business administration, and production management, $\$ 750$ for academic achievement and community activities.
3. Accounting - a) McGladrey, Hendrickson \& Co. Education Award for $\$ 250$ for a graduating senior going into public accounting; b) Fox \& Co. - three \$300 awards for senior sitting for CPA; c) Peat, Marwick, Mitchell \& Co. - three $\$ 300$ awards for seniors in financial need and sitting for CPA; d) Ernst \& Whinney Scholarship of $\$ 500$ to a junior who will go into public accounting upon graduation; 3) Peat, Marwick, Mitchell \& Co. - two \$500 awards to juniors who will go into public accounting upon graduation; f) Honeywell Corporation Scholarship - one $\$ 500$ award to a junior who will go into public accounting upon graduation; g) Jerry B. Paterson Scholarship - one $\$ 500$ award to a senior going into public accounting; h) Mosebach, Griffith \& Co. Scholarships - two $\$ 500$ awards to juniors who will go into public accounting upon graduation.
4. Management - Rolscreen, see above.
5. Marketing - a) Jim Champion Memorial Scholarship - one $\$ 500$ award to marketing, advertising or communication arts student, minimum GPA of 2.50 ; b) Billy G. Jenner Memorial Scholarship - one $\$ 500$ award, same as above; c) Cedar Rapids Advertising Federation - one $\$ 500$ award for advertising juniors.
6. Information Management - Undergraduate: a) Kenneth L. Hansen Award of $\$ 100$ to a student with a Business Education or Office Education emphasis and 2.75 GPA ; b) Administrative Management Scholarship of $\$ 400$ to an active member of collegiate AMS with a 2.75 GPA and one semester left; and c) UNI-AOP Scholarship of $\$ 100$ to an Administrative Management major with a 3.00 GPA and is also based on financial need. Graduate: a) Lloyd V. Douglas Award of $\$ 100$ to a graduate in Business Education; and b) Delta Pi Epsilon Research Award of $\$ 50$, completed research paper required.

## Presidential Scholars

Presidential Scholarships are offered to entering freshmen who possess high academic ability and quaiities of leadership, involvement and sevvice. Fifteen scholarships are offered each year and are renewable for four years if minimum standards are maintained. Presidential Scholars follow an individually determined program of study designed to achieve the objectives of the general education program as well as an opportunity to specialize in a discipline of their choice. Scholars will participate in scholars-only seminars and will complete a senior thesis/project. They will graduate with special recognition and distinction.

To apply, applicants must receive an ACT score of 28 or better and be in the upper ten percent of their high school class. The final screening 26
will include an interview and the writing of an essay during a visit to the University of Northern Iowa campus in Cedar Falls.

## Graduate Scholarships and Awards

Several scholarships and awards are available for graduate students at UNI, and information on these may be obtained from the Graduate College office. Some of these scholarships and awards are for graduates in specific disciplines, and department offices and the academic colleges will assist with information on eligibility and application procedures.

In addition to the above, the Merchant Scholarship is available to a graduate of the University of Northern Iowa who plans to enter a 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.

## UNI Parent's Association (UNIPA) Scholarship Program

Five scholarships in the form of tuition grants applied directly to the student's account are awarded annually. The value of the awards is determined each year at a meeting of the Board of Directors of the Association. To be eligible for consideration a student must: a) be a fulltime student; b) possess a cumulative grade point average of 3.0 or better; c) have completed at least one semester of course work at the University of Northern Iowa; d) be a sophomore, junior or senior at the time the award is realized; and e) be nominated by her/his respective college or nominate herselfhimself by filing an application in the Alumni Office. In selecting the award recipients, consideration is given to: a) participation in college, university and community activities and leadership abilities therein; b) personal statement submitted by the candidate, including career objectives; c) personal interview with the UNIPA Scholarship Committee members; d) potential for leadership in academic major area; and e) grade point average and evidence of other scholarly activities.

## University of Northern Iowa Foundation Fund Scholarships

Contact the Financial Aids and Student Employment Office for specific information on the following scholarships.

## School of Business

Kenneth Hansen Memorial
Lloyd V. Douglas Memorial Katherine Humphrey John S. Latta, Jr. Scholarship James Blanford Memorial Department of Marketing Business Education and Administrative Management

## College of Education

Ida Mae Wilson Scholarship Holy Memorial
Graves Memorial Scholarship
James Clark Memorial Library Science Scholarship Elsie Sindt Scholarship Fund Phillip \& Gertrude L. Odens Memorial Scholarship
Jean Bontz Student Aid Fund
May Smith and Amy Arey Scholarship
Julia Sparrow Scholarship
Virginia Ramsey Scholarship
Educational Scholarship Fund Lou Shepherd Scholarship

Rolscreen Company Scholarship Maytag Scholarship in Business Mary Crawford Burnell Memorial UNI Endowment - School of Business - Leonard Keefe Memorial John Wasco Memorial
Robert J. Waller, Sr., Scholarship Department of Management

Alice 0. Gordon Memorial
Alice and Sarah Laun Memorial
Shirley Winsberg Memorial Scholarship
Alice Suroski Scholarship
Kappa Delta Pi
Stanley Butier Reeves Reading Scholarship
Clifford Bishop Memorial
John S. Latta, Jr, Doctoral Scholarship
Paul Brimm Recognition Scholarship John J. Kamerick Scholarship University Book and Supply

## College of Humanities and Fine Arts

Theta Alpha Phi Scholarship
Music Scholarship
Sigma Alpha lota - Olive Baker
Memorial Scholarship
String and Harp Scholarship
Harold B. Holst Memorial MusicTheatre Scholarship

Northern lowa Jordan Memorial
John E. Partington Memorial Scholarship
Grossman Scholarship
Minnesingers
Humanities and Fine Arts Scholarship Fund

School of Music Jazz Scholarship Bartlett-Freeland Debate Award Elaine Stageberg Memorial Scholarship
Alta Freeman Memorial Scholarship Frank Hill Strings Scholarship Tom Pettit Scholarship David Kennedy Memorial Education Media Fund - Grossman

## College of Natural Sciences

Louis Begeman Memorial Scholarship Anthony Scholarship Robert Getchel Memorial Louis Hearst Speer Memorial Howard O. Reed Industrial Arts Ink Scholarship for Iowa Teachers Conservation
E. W. Hamilton Scholarship Natural Science Scholarship Fund Rex Miller Scholarship C. W. Lantz Scholarship Fund

## Miscellaneous Funds

Faculty Memorial Scholarship
C. B. McDonald Scholarship Waterloo-Cedar Falls Scholarship Cora and Martin Nelson Alison Aitchison Memorial Alumni Memorial Scholarship J. W. Maucker Fund Anton Berg Memorial Fund Millington Carpenter Scholarship Anton Nielsen Scholarship Faculty Dames Scholarship George Lester Morgan Fund Neva Henrietta Radell Scholarship Gretchen Junge Memorial James C. Gilchrist Memorial Anna Beal Memorial
Lambert and Mary Furness Scholarship
College of Social and Behavioral Sciences
Charies T. Leavitt Memorial Scholarship
Letitia E. Walsh Award
Social and Behavioral Science Scholarship Fund
Graduate College
Schackelford Scholarship
Intercolleglate Athletics
Intercollegiate Athletics Arthur Dickinson Memorial Stacy Miller Memorial Scholarship
Joseph L. Marion Memorial

Radio and TV - Grossman
Emma Jackson Baty Journalism Scholarship
Jeff Shull Scholarship/internship
Emil Bock Scholarship Fund
UNI Suzuki Talent Education
Cedar Valley Lion's Club Annual Scholarship

Vivian Wiseman Fullmer Scholarship
J. S. Latta, Jr - Biology

Charles Hearst Scholarship
Clifford McCollum Scholarship
Myrle M. Burk - Kappa Delta Pi Science Education
Century Companies of America Actuarial Science Scholarship
Biology Awards and Honors Industrial Technology

Crow's Hybrid Com Scholarship
Stringer Mowrer Scholarship
UNI-AOP Scholarship Fund
Ronald L. Grant Memorial Scholarship
Masako Mukai Kusomoto Scholarship UNI-CUE Scholarship
Patent Fund
Parent Scholarship Fund
Waterloo Rotary Scholarship
Pauline Elliot Memorial
Robert Hill Memorial
Paul C. Kelso Memorial
Rasmussen Scholarship Fund
Thelma Vincent McColm Scholarship
Pi Tau Phi - Lintner Scholarship

Elizabeth Sutherland Howe Home Economics
Dennis Jensen Memorial Scholarship
George Poage Service Award
Merle R. Thompson Memorial

Graduate College Fund

Norbert and Ann Noecker Memorial
Richard L. Robert Scholarship
John S. Latta, Jr., Athletic Award


## Student Life

The university is committed to assisting students in making their education more valuable and meaningful. To that end, residence hall life provides a total living experience with educational, cultural and social programs. The university's support services offer assistance that will enhance each student's opportunity for a successful college career.

## Orientation

Orientation programs are offered for new students to acquaint them with university services and the registration process. Most new freshmen who begin their study in the fall semester attend a summer orientation program during the preceding June or July. Transfer students are invited to either a spring or summer transfer orientation program. Students who do not begin their study during fall semester attend orientation and register just before classes begin for that term. Parents of new students are invited to participate in a special parent orientation program.

Campus tours are offered by the Northern Iowa Admissions Office during the orientation program in the summer and throughout the year to prospective students and their families. Only students who participate in an orientation program may pre-register for classes. To arrange a visit to the campus, contact the Admissions Office, 172 Gilchrist Hall, University of Northern Iowa, Cedar Falls, Iowa 50614.

## Housing

## Application for Rooms in Residence Halls

The housing contract serves as the official application for a room reservation in the residence halls (see p. 23). The Department of Residence 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.

## 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 which are acceptable to the Housing Office have not been made for later occupancy, the reservation will be cancelled.

The housing contract is for the entire academic year, or the summer session. If the contract is terminated before the expiration date, the refund plan as stated in the contract will apply; however, the student is responsible for any financial liabilities incurred prior to the date of termination.

## Residence Halls

The Department of Residence provides a design capacity of 4,612 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 the students.

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. A Resident Assistant (an upper-class student staff member) lives in each house to serve as an information resource to all students.

Women's halls include Campbell, Hagemann, and Lawther. Men are housed in Rider and Shull Halls. Coeducational housing includes Bartlett, Bender, Dancer, and Noehren Halls.

## University Apartments

One- and two-bedroom apartments, furnished and unfurnished, are available to married students, single parents with family, and graduate
students. Assignments are made on a date-of-deposit priority basis. Applications and all inquiries should be directed to:

University Apartments Office
3900 Jennings Drive - Hillside Courts
Cedar Falls, IA 50613

## Dining Service

Dining service is provided in four dining centers across campus. The customary "full board" contract is for twenty meals per week; no Sunday evening meal is served. Three other board options are available: "no breakfast," "no weekend," and "no breakfast and no weekend." A student who lives off campus may contract to eat some or all meals in a university dining center. A "no-board, room only" contract is available only in Bartlett Hall.

## Academic Advising Services

Academic Advising Services are designed to assist students in planning their educational programs and use the resources of the University of Northern lowa in meeting their special educational needs. The Academic Advising Center is located in 161 Baker Hall. Through a staff of professional and peer advisers, students receive advising assistance in selecting a major, selecting courses, scheduling, and identifying and resolving academic difficulties. Information is available to graduate and undergraduate students in many National Testing Programs. Special group programs are available to meet special student needs.

Academic Advising Services coordinates a university-wide advising system which involves faculty advising as well as a variety of student services. Freshmen are assigned to a faculty adviser in an area of their preference; freshmen having no preference of major are assigned to a general adviser in the Advising Center.

Advisement and registration of all new students are the responsibility of this office. Questions related to new student advisement and undergraduate advising should be directed to the Academic Advising Center, 161 Baker Hall, University of Northern Iowa, Cedar Falls, Iowa 50614.

Services of the Advising Center staff are available to all enrolled students at UNI.

## Office of Learning and Instruction

This office provides programs which allow a student to improve upon and strengthen the abilities in reading, writing, and studying which he or she has formed during academic life. The programs are designed to help each student understand and more fully utilize innate talents and productive habits, eliminate bad habits and misunderstandings, and develop more completely the skills needed to be successful at university work. The services provided by the office are divided into three connected programs: Reading, Writing, and Study Strategies. Each program offers assistance through one or more of the following services.
Informal Courses. Short, non-credit courses are available to all students free of charge. Speed Reading and Effective Study Strategies courses are offered twice each semester. These are survey courses which provide practice at developing a number of skills; for example, the Effective Study Strategies course includes time management, reading textbooks, note making, test preparation, learning techniques, and other useful skills. Other courses are offered periodically as interest or need requires.
Individual Appointments. A student who wants to focus on one or more specific skills can make an appointment with an office instructor, and together they will plan a program of development. A student who has a problem studying for a particular course, reading a certain textbook, and so on, can work with an instructor to solve the problem. A student who
wants to improve any aspect of her/his writing may arrange either a onetime appointment or an on-going tutorial with one of the Center's writing tutors.
Supportive Seminars. The Supportive Seminar is a weekly "review" session which is coordinated with an academic class, usually an entrylevel general education course. The objective of the seminar is twofold: 1) to review the course material (readings, lecture notes, etc.) and 2) to discuss and present effective methods for studying in the particular course. The seminar leader, an "expert" in both the course content and learning methods, blends the two to allow the seminar student to learn the course material through productive learning skills.
Lhbrary. The library contains learning materials which complement the Center's reading, writing, and study strategies programs. Here, students may use resource materials at any time either to complete tasks which are part of their work at the Office of Learning and Instruction or as reference when doing their regular course studies. Students are also invited to use the library as a quiet place to study.

In addition to the primary responsibility of working directly with students on academic skills development, the OLI provides support services to faculty. Staff serve as consultants to faculty on matters such as learning techniques, teaching methods, and testing practices and present workshops to academic classes regarding specific learning techniques. A small Teaching and Learning collection in the Center's library provides resources on adult learning, college teaching, learning strategies, and the like. The OLI also provides academic training for graduate students in curricula such as English, secondary reading, and counseling, and for undergraduate students in any academic major.

The Office is staffed by full-time professionals and part-time student assistants who want to serve you. Please call or stop in to find out how you can put us to work for you.

## Student Health Services

The Student Health Center provides medical and mental health care to all students enrolled at the University of Northern Iowa. The spouse of a student is also eligible upon payment of the optional spouse Activity Fee at the Business Office in Gilchrist Hall. Services are provided by a well-qualified professional staff which includes physicians, an administrator, nurses, pharmacist, technicians, and secretarial and clerical personnel. Services include consultation and treatment for illnesses and injuries, mental and physical health care, as well as preventive medicine.

The Student Health Center is located on the north side of the campus on 23rd Street, north of the Education Center, and west of Lawther Hall. It is across the street from Bender and Dancer residence halls. The well equipped out-patient clinic includes emergency, examination, and treatment rooms, a laboratory, X-ray, and pharmacy. No charge is made for routine clinic consultations, but a nominal charge is made for medicines, injections, $x$-rays, laboratory tests and other medical services. Although dental services are not available, the staff will furnish supervision and assistance in obtaining these and other services whenever needed.

The Health Center is open Monday through Friday from 8 a.m. to 5 p.m., during the fall and spring semesters and from 8 a.m. to 4 p.m. during the summer sessions. The Health Center is closed Saturdays, Sundays, and holidays and usually whenever university classes are not in session. When closed, health problems should be discussed with a health aide in the residence halls. All hall coordinators and resident assistants have been trained by the Health Center to function on a health-educated layman's level of competence to recognize symptoms indicating a need for medical attention. They can suggest appropriate arrangements to students who are ill or injured. Emergency coverage is always available at any of the hospital emergency rooms in Cedar Falls and Waterloo.

It is recommended that all students have current immunizations. Diphtheria and tetanus booster immunization shots should be obtained every ten years.

A group accident and sickness insurance plan may be purchased through the university on a voluntary basis for those without medical insurance or anyone not covered under their parents' insurance. Participation in the insurance program or proof of comparable coverage is recommended. Information on the coverage and the cost of this insurance is available from the Health Center. For your own protection, no student should be without health insurance coverage.

## Counseling Services

The services of the Counseling Center are designed to assist students in becoming more effective as students and as persons, as well as to grow in self-understanding and thereby cope more effectively with immediate situations and with future decisions. The UNI Counseling Center is staffed with professional counselors and psychologists who provide the following services:

1. Individual and group counseling in the areas of career planning, academic planning, personal-social growth, interpersonal relationships, marital and pre-marital counseling, and human sexuality.
2. Referral services to other areas and agencies. A close relationship is maintained with the UNI Health Service for students who require medication.
3. Collaboration with faculty provides the services of the counseling staff as resource individuals in instructional classes or as consultants to individual staff members, departments, and residence hall staff.
4. Coordination of services for handicapped students.

The services of the Counseling staff are available to all currently enrolled students without charge and to student spouses who have purchased the spouse activity ticket. Limited senvices are available on a fee basis to former students, faculty, staff, and non-students. Interviews are confidential.

Appointments for counseling may be made directly at the Counseling Center or by a telephone call. As a general rule, emergency appointments are available immediately and other appointments within a short time.

## Career Services

The Career Center is staffed with professional counselors who offer assistance to students in examining interests, values, skills, and the world of work before making career decisions. Career and educational information is available conceming vocational trends, job qualifications, requirements for major and minor areas of study at UNI, and catalogs from many colleges and universities. Employment information files containing specific information on employers, vacancies, and job hunting strategies are also available to students.

## Placement Services

The Placement Center assists prospective graduates and alumni to secure positions in accordance with their qualifications and personal interests. The center maintains placement files for registrants, distributes job vacancies to registrants through the use of a computerized vacancy notice system and newsletter, invites representatives from school systems and companies to interview candidates on campus, teaches job hunting skills and counsels with individuals regarding placement concerns.

Individuals may register for placement services if they are in their final academic year and will complete a minimum of thirty undergraduate hours or ten graduate hours at UNI. There is no charge for consulting with staff regarding placement concerns. Students or alumni who wish to register with the center and establish a set of credentials must pay a fee.


## Foreign Student Affairs

Undergraduate and graduate students who come to UNI from countries throughout the world are served by a central office located in Gilchrist Hall. Through the Office of Foreign Student Affairs, students are assisted in making arrangements to come to the campus from their home countries and in their daily campus activities while they are pursuing their educational careers.

The admission of international students is monitored by the Foreign Student Adviser, who certifies the students' credentials necessary for admission and issues Certificates of Eligibility needed for visa applications to enter the United States. Housing arrangements are made in advance: for single students in Bartett Hall, and in the on-campus University Apartments area for married students who bring their families. Throughout the year, foreign students may seek the assistance of the Foreign Student Adviser in academic, personal, and immigration matters.

Foreign Student Affairs works closely with the International Student Association, which is open to all foreign and American students interested in international education and intercultural experiences.

For information concerning foreign admission, contact the Office of Foreign Student Affairs, 172 Gilchrist Hall, University of Northern Iowa.

## Student Activities and Honors

Extracurricular activities are encouraged at the University of Northern lowa because of the important contribution these activities make to the total education of the student. The university maintains an extensive program of extracurricular activities: intercollegiate athletics, dramatics, publications, forensics, music, social life, artists series, student organizations and interest groups, intramural sports and recreational activities, and sports clubs.

Music - Music organizations and ensembles are open to all students by audition. Participation by non-music majors is encouraged. Credit is available to all who participate. Groups offered are: Concert Chorale, University Singers, Women's Chorus, Varsity Men's Glee Club, Wind Symphony, Panther Marching Band, Symphonic Band, Jazz Bands, University Orchestra, OperaMusic Theatre, plus several instrumental ensembles.
Theatre - Any enrolled student is welcome to audition or volunteer for production responsibilities in the major productions or many student productions produced by Theatre UNI and UNI Lyric Theatre. Seasons typically include classical and modern drama, opera, musical comedy, and children's theatre. The theatre also produces a three-show summer season each year. All members of the university community are invited to attend productions in the Strayer-Wood and Bertha Martin Theatres.
Forensics - The forensics program, under the auspices of the Department of Communication and Theatre Arts, encourages participation of all interested students, both in debate and individual events regardless of major. The forensics squad participates in some thirty to thirty-five intercollegiate forensic meets per year on a regional and national basis. Participants may choose to enter debate or individual events. The latter includes public address, interpretation and acting events.
Intercollegiate Athletics - Various intercollegiate sports are available to both men and women at UNI. The university engages in intercollegiate athletic competition in a total of 19 sports. Men may participate in baseball, basketball, cross country, football, golf, swimming, tennis, indoor and outdoor track, and wrestling. Women also compete in basketball, cross country, golf, swimming, tennis, and indoor and outdoor track, as well as in softball and volleyball.
Campus Recreation - The division of Campus Recreation, under the auspices of the School of Health, Physical Education, and Recreation, has a variety of intramural sports activities, recreational activities, and sports clubs during the academic year. These programs are designed to

provide opportunities for satisfying and enjoyable participation in an activity for each student and a program for every organization. These activities are held in the Physical Education Center, East Gym, West Gym, or on the playing fields west of the Physical Education Center.
Social Life - The social life at the University of Northern lowa is a flexible program designed to meet the ever-changing interests and needs of the students and university community. Social opportunities are offered in forms including popular and cultural film programs, art exhibits, fine arts productions, live musical entertainment, dances, campus-wide events, speaker programs, forums, and community service projects. Much of the program planning relies heavily on student involvement. Information pertaining to involvement is available through the Programs/Student Activities Office in the lower level of Maucker Union.
Student Government - The student government associations include the UNI Student Association, the Residence Halls Association, the Interfraternity Council, Panhellenic, and the Union Policy Board, the United Students of Iowa, and the individual residence hall senates.
The UNISA Senate - The Senate is the legislative branch of UNISA. The executive members include the president, administrative vice-president, academic vice-president, program vice-president, finance vicepresident, and secretary. Elected senators are chosen on a population basis from university housing, off-campus housing, and the student body at large. The UNISA Senate promotes cooperation between students and faculty, seeks solutions to student concerns and represents the entire student body in matters affecting student interests.
Union Policy Board - The Union Policy Board of Maucker Union is composed of ten students and eight nonstudents. The Board recommends policy 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 a president, vice-president, and secretary. The president and vice-president must be students.

Throughout the academic year, the Union Policy Board may discuss and decide on issues ranging from building 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. Information on specific interest organizations can be obtained in the Programs/Student Activities Office in the lower level of Maucker Union.
Graduate Student Organization (GSO) - Primarily the GSO is an advocacy group which unites the concerns and aspirations of graduates, and serves as a vehicle for intradepartmental and intracollegiate communication on points of graduate student interest. For example, the group organizes and develops seminars in the early fall semester on facilities available to graduates, including library rooms set aside for exclusive graduate use as well as computer facilities and training available. Seminars on thesis and research report writing and on graduate student placement are also likely candidates for CSO topics. Elected representatives to various other campus groups keep the graduates better informed on campus affairs and provide an input to these bodies from the GSO. Graduates are encouraged to investigate the organization and profit from their practical corporate interests.
Honor Organizations - Superior achievement in various academic disciplines and in extracurricular activities is recognized in honor organizations. Information on these organizations may be obtained from the Programs/Student Activities Office, Maucker Union.

Fraternities/Sororities - There are five social sororities and six social fratemities, each nationally affiliated, on the campus. Persons interested in Greek life must go through a formal or informal rush process held at the beginning of each semester. Leadership development, scholarship achievement and service to the university and community are stressed as important facets of individual development. The activities of the sororities are coordinated through the Panhellenic Association, those of the fraternities through the Interfratemity Council. Achievement in Greek life is recognized by the local chapter of the National Order of Omega, an honor society for outstanding men and women with fraternal affiliation. Information may be obtained from the IFC/Panhellenic Office or Programs/Student Activities Office, which are located in the lower level of Maucker Union.
Religion - There are numerous opportunities for the nurture and maturing of the religious life of the student at UNI: planned religious activities, lectures, seminars, student religious foundations and organizations, the factual study of religion by way of courses in the curriculum, and religious counsel and worship in the churches and centers in the campus area. Information on specific religious organizations may be obtained in the Programs/Student Activities Office on the lower level of Maucker Union.
Station KCRS - Station KCRS, is a student managed and operated 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 UNl sporting events. Station studios and offices are in Maucker Union.
Student Publications - Three publications are written, illustrated and edited by students for campus-wide distribution. They are The Northern Iowan - the student newspaper distributed twice a week during the fall and spring and once a week during the summer session; Old Cold - the student yearbook, published annually; and Inner Weather - the student literary and arts magazine published annually in the spring.
Professional Performing Arts on Campus - Each year, the UNI Artists Series brings to the campus five or six performances by internationally renowned artists from various fields of entertainment. A typical series may include not only soloists or ensembles performing serious music, but also dance and theatre. The UNI Chamber Music Series also presents four concerts by distinguished ensembles or soloists each year. Student tickets for these series are available at a considerably reduced price.

From time to time during the year, vocalists and instrumentalists from the popular music field are also presented on campus.
Student Spouse Activity Program - The spouses of full-time UNI students may, by paying a fee equal to one-half the Student Activity Fee, entitle themselves to the university services and benefits which are available to students, e.g., health services, counseling and career services, library privileges, part-time employment services, and reduced rates for many university cultural, social, and athletic events. This program is designed to encourage spouses to participate as citizens of the UNI community.

Spouses who wish to procure an Identification Card should pay the appropriate fee at the cashier's window, UNI Controller's Office, 256 Gilchrist Hall. Spouses must be accompanied by their student husband/ wife. The Identification Card is issued by the Scheduling Office, 243 Gilchrist Hall, upon presentation of the fee receipt.


# University Facilities and Educational Services 

## Facilities

## The Library

The University Library has shelving capacity for about 700,000 volumes and provides seating for about 1,600 persons. Among the facilities available to library users are study tables and carrels, lounge areas, group studies, a study room for graduate students, faculty studies, and a room for persons with vision impairment. Services offered include photocopying (including coin-operated machines), coin-operated typewriters, calculators, video cassette players, and on-line bibliographic search services.

As of July 1, 1985, there were 615,209 volumes in the book collections. Included in this total is the non-circulating Reference Collection of 18,035 volumes and the Youth Collection, a representative collection of elementary and secondary school library material currently consisting of 16,081 volumes. The Library has current subscriptions to 2,801 periodicals and 70 newspapers with extensive back files of most periodicals and a few newspapers. The Documents and Maps area houses a collection of government publications currently consisting of 201,872 documents in hard copy and 97,474 items in microfiche form. The same area includes the Map Collection of 33,373 items. The Art and Music area has a sound recording collection of 6,810 discs and 723 cassettes and equipment for both individual and group listening. Microforms collections include 18,585 reels of microfilm, 398,060 microfiche, and 12,855 microcards. Other significant resources are Special Collections including Rare Books and the University Archives, the Browsing Collection, the Career Collection, Iowa and general information files, and Corporation Annual Reports.

The Library is open 101 hours per week during the fall and spring semesters and 87.5 hours per week during the summer session. Schedules are considerably reduced during vacation and interim periods. Variations from regular schedules are posted in the main lobby of the Library and are published in the Northern lowan and the Green Sheet.

## Maucker Union

The Maucker Union, located east of the UNI Library, serves as an informal meeting place for students, faculty, 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 service, meeting rooms, and dining services which range from coffee service to banquets and luncheons. Recreational facilities include a billiards game room. The building houses the offices of the campus newspaper and student government groups. It is also the Student Activities Center for the campus.

Social and cultural activities include art exhibits, weekly movies, a series of "mini courses" and forums and lectures. 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 facilities are available for movies, dances, banquets, parties, and other extracurricular activities, and are open to students, staff, and campus guests.

A primary function of the building is to provide a food service for the residents of Bartlett and Lawther halls.

The Georgian Lounge (on the main floor) is used for teas, receptions, and other special occasions. The ballroom, also on the main floor, is a multi-purpose room used for banquets, movies, dances, and lectures. The general dining areas and kitchen are located on the ground floor.

A majority of the facilities of the Commons are utilized by the Educational Media Center for academic purposes.

## Gallery of Art

Among the facilities offering cultural enrichment to the UNI student is the Gallery of Art operated under the auspices of the Department of Art and occupying a 5,300 square feet portion of the new Art Building. A large main gallery is devoted to changing exhibitions that represent a wide range of international art interests. Each academic year there are six to eight major exhibitions.

Numerous activities are sponsored by the Gallery including lecture programs, concerts, seminars, and discussions. A volunteer docent program affords students the opportunity to work with children and community groups within the exhibition setting. Along with volunteer experiences in gallery management and museology, UNI students may arrange various types of individual study programs through the Gallery.

The Gallery of Art is an educational resource center where there is ample opportunity for broadening cultural vision or exploring the intricacies of art

## University Museum

The University Museum, accredited by the American Association of Museums, is used extensively as an educational resource by both university classes and area schools and as a cultural facility by local clubs and individual visitors.

The collections of the Museum embrace four subject categories: geology, biology, anthropology, and history. The geology collection consists of minerals, rocks, and fossils of worldwide distribution. The biology area includes a bird collection consisting of most birds indigenous to the midwest as well as some exotic, rare, and extinct species. Large and small mammals, reptiles, fish, anthropods, and marine invertebrates, including a vast collection of shells from around the world, are also a part of the biology collection. American, lowa, and local history are represented from colonial times to the present by a wide variety of artifacts and printed documents. The anthropology area, which began with a collection of Indian arrowheads, axes, mauls, and Pueblo pottery, is at present time the most rapidly expanding area at the Museum and includes important collections from Africa, Asia, the Pacific Islands, and South America.

A public support group known as the Friends of the UNI Museum has been established to help the Museum through financial and moral support. Membership is open to anyone with the desire to see the Museum grow and expand its services.

Located at 3219 Hudson Road, the Museum is open, free of charge, daily from 9 a.m. to noon and from 1 to 4:30 p.m. during the school week. It is closed on legal and university holidays. Although large groups such as clubs and classes are asked to telephone or write the Museum for appointments, all other visitors are invited to come without appointments any time the Museum is open.

## Broadcasting Services

The University of Northern lowa operates two separately programmed public radio stations. KUNI-FM serves the Cedar Falls/Waterloo, Cedar Rapids and Iowa City areas at FM 91 . KUNI can be heard at 98.3 FM in Dubuque and at 94.5 FM in the Quad Cities. The station broadcasts high quality music and public affairs programming 24 hours each day. KHKE, at 89.5 FM, serves the Cedar Falls-Waterloo metropolitan area with a comprehensive schedule of classical music and jazz. Both stations have a large core of active volunteers and are supported financially by the university and in part by the listening public. Student internships are available at the stations through the Communication and Theatre Arts Department. Studios and offices are housed on the third floor of the Communication Arts Center.

## Office of Public Relations

The mission of this office is to foster development of and to maintain a public awareness within the university, the state of Iowa, the region, and where possible, the nation, that will contribute to and be supportive of the university's mission through thoughtfully conceived and produced public relations programs.

The news information service interprets programs of the university and recognizes accomplishments of students, faculty and staff through news releases, photographs, public service announcements, broadcast tapes and tip sheets to the print and electronic media, in addition to articles for specialized and general interest periodicals. Institutional information files are maintained in order to answer requests and to assist members of the public and representatives of the news media who seek background facts.

The publications service supervises the development and production of more than 500 brochures, catalogs, and other publications produced annually. It also serves in a consultative capacity to faculty and staff to assist them in determining the most effective ways of communicating through printed materials.

The office also operates the Visitor's Information Center which provides information and assistance to university guests.

The director serves as Northem Iowa's representative on the Regents Information Committee, a cooperative program with other units of the State Board of Regents system.

## 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 ISNS (Iowa State Normal School)." It was incorporated under the name University of Northern Iowa Alumni Association on July 12, 1972.

With the growth and development of this institution, the Alumni Association has developed into a working service organization, pledged to promote the welfare of the University of Northern Iowa and its faculty, graduates, students and friends. There is a special two-year membership fee for graduates immediately following graduation. There is no membership fee for alumni currently pursuing an addtional degree on a full time academic year basis.

The Alumnus is the Association's official publication of alumni and university news and is sent quarterly to all members of the dues-paying Alumni Association. The Northern Iowa Today is a quarterly tabloid newspaper which is sent to alumni, friends, and parents of currently enrolled students.

Groups of UNI Alumni located in several major cities throughout the United States gather annually for social events. Beginning July 1, 1985, two areas were targeted for charter clubs. These charter clubs will be organized and developed by means of mini-boards and steering commit-
tees with the assistance of the Director of Alumni Relations. Each year, additional clubs will be chartered.

Alumni assist the university in many ways, including financial support for scholarships, facilities, and cultural activities for which state funds are not available. Alumni are also involved in recruitment of students, service on special university committees, and chairing traditional campus celebrations.

The Alumni Office now services the records of more than 63,000 alumni from its offices in Latham Hall. This office provides clerical assistance to the charter clubs and is a source of information to alumni regarding conferences and meetings of special interest on campus including traditional alumni related celebrations and events. Our office coordinates Homecoming, Parents Weekend, Reunions and the Alumni Honors Program. The Alumni Office also assists university colleges, schools and departments in maintaining a continuing relationship with their majors following graduation.

Since 1980, the Alumni Association has sponsored a student alumni council which consists of 20-30 undergraduates. The establishment of this student alumni council has been a significant step in the history of the University of Northern Iowa Alumni Association. The students have provided meaningful and needed services for the university, for fellow students and for the Alumni. Conversely, the students involved become better acquainted with the philosophy and services of the Alumni Association and in doing so strengthen the total alumni relations program.

## Student Alumni Council

The UNI Alumni Association is augmented by a student organization called SAC - Student Alumni Council.

SAC members participate in a variety of social and educational functions as UNI representatives both on and off campus. Being a service organization, SAC volunteers serve as goodwill ambassadors and public relations liaisons for alumni and other special campus guests.

Programs include: The Senior Brunch, The Freshman Picnic, "Job Talk," Finals Week Survival Kits, Birthday Cakes, and The Freshman Record plus participation in Homecoming, Parents Weekend and alumni charter club functions.

Information can be obtained by contacting the Alumni Relations Office, 137 Latham Hall.

## 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. Many accounts within the Foundation have been established as memorial funds for members of the faculty, staff or alumni. 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 an additional service for alumni and friends, the Foundation staff will provide assistance in estate planning.

The Foundation is the official channel through which gifts, both large and small, may be given for the benefit of the University of Northern lowa. 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 or questions should be addressed to:
UNI Foundation
University of Northern lowa
Cedar Falls, Iowa 50614

## Educational Services Academic Computing Services

Academic Computing Services, located on the ground floor east wing of Baker Hall, provides research and instructional computing services and facilities to UN faculty, staff and students. In addition to the facilities themselves, ACS provides custom programming and key entry services for faculty and staff, as well as consulting and training on supported systems. Newsletters and free training workshops are offered to UNI faculty, staff and students on a non-credit basis throughout the year.
Facllties: Academic Computing Services provides public computer terminal and microcomputer facilities at several locations around campus. The nearly 100 public terminals are distributed among the following instructional buildings: Wright, Seerley, McCollum, Industrial Technology Center, Physics, Communication Arts Center, Education Center, Baker and the Library, In addition, the residence hall system provides a cluster of 12 terminals in the Redeker Center. The two public microcomputer facilities contain 18 Apple II + systems, 10 of which are connected to a 20 MB hard disc via the Corvus Omninet system. These clusters are located in the Education Center and Wright Hall.

These remote terminals and computers are connected to either a Harris 700 or Harris 800 minicomputer housed in Baker Hall through a Gandalf port selector. The port selector establishes connections between the terminals/computers and the 110 ports available on these computers.

Graphics applications are supported on four Tektronix 4025 CRT terminals, a Graf-Pen GP6 digitizer and a Nicolet 3653SX 4-pen drum plotter

Finally, our NCS 7008 Optical Mark Reader provides both data entry and test scoring support to faculty and staff.
Services: Local batch and interactive computing is provided on the Harris 800 . This system permits users to compile and execute programs written in FORTRAN, COBOL, BASIC, LISP, Pascal or C languages. In addition to these languages, users of the Harris have access to the SPSSX, MINITAB, STAT80, and SHAZAM statistical packages, to the INFO database management package and to the MUSE word processing system. Spreadsheet and graphics software available include V-CALC and DI-3000 Extended Graphics with Grafmaker. Program and data entry are facilitated by the TX full screen text editor and a full complement of system utilities.

Remote batch computing resources are available through UNI's membership in the Regional Computer Center (RCC) based at the University of Iowa. This link provides users with access to the IBM 303 X system at the University of Iowa and the National AS/6 system at Iowa State University. These systems support SAS and SASGRAPH, OMNITAB and BMPD statistical packages as well as a library of useful mathematical routines (IMSL and SSP) and other more specialized software packages.

Test Scoring and Analysis service provides scores, item analysis and class rosters with scores for multiple choice classroom examinations. Twenty-four-hour turnaround is promised throughout the year.

Custom programming and key entry service is provided by ACS professional and student staff.
Computer Center Hours: During fall and spring semesters the ACS facility in Baker Hall is open for use on the following schedule:

| Sunday | Noon $-11: 30$ p.m. |
| :--- | :--- |
| Monday-Thursday | 7:30 a.m. $11: 30$ p.m. |
| Friday | 7:30 a.m. -5 p.m. |
| Saturday | 10 a.m. -5 p.m. |

Holiday, semester break and summer session hours are different from these hours. They are announced several weeks in advance of the change.


ACS professional staff are available for consulting during the normal business hours of the university.

## Curriculum Laboratory

The UNI Curriculum Laboratory is a facility where students and faculty, as well as in-service teachers and administrators, may pursue educational studies and projects related to curriculum and instructional development. The Curriculum Laboratory is located in Room 222 of the Education Center, near the main entrance to the building.

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

Services provided by the Curriculum Laboratory include large and small group orientations, consultations, bibliography preparations for faculty, building tours, and special displays. Photocopiers are available for public use and the Education Center's lost and found is located in the facility. In addition, Academic Computing's university-wide microcomputer laboratory is located adjacent to the Curriculum Laboratory where materials and services are provided by the lab staff.

The Curriculum Laboratory is open during fall and spring semesters from 7:45 a.m. to 10 p.m. Monday through Thursday, 7:45 a.m. to 4 p.m. on Friday, 1 to 5 p.m. on Saturday, and 1 to 9 p.m. on Sunday. Hours for the summer session are announced at the beginning of each session.

## The Educational Media Center

The Educational Media Center is a university-wide service department established to meet the varied instructional and communications media needs of the students, faculty, and administrative staff of the university. It is responsible for the university's media equipment and collection of media software and provides services in instructional development, media utilization, production planning, production, and research. The EMC consists of seven, closely related areas: Audio Production Services, Audio-Visual Services, Graphic and Photographic Senvices, the Media Laboratories, Motion Picture Production Services, Slide and Multi-Image Services, and Television Services.

Audio Production Services, located in the Education Center, is equipped to produce high quality master tapes in both reel-to-reel and cassette formats, and provides opportunities for professional sound recording, mixing, and editing in studio or on location.

Audio-Visual Services is located in the Commons Building and is the university-wide service agency for obtaining, distributing, and coordinating media software and equipment. The A-V Center provides a complement of audio-visual equipment in each instructional building and maintains a variety of media equipment which is available for checkout. A library of media software ( 8 and 16 mm films, regular and sound filmstrips, audio tapes and records, and slides) is maintained by the A-V Center, with facilities available for examining the materials, as well as a 48 -carrel audio listening center for individual or group use.

Graphic and Photographic Services, on the ground floor of the Commons (west), provides consultation, design, and the production of media materials. Many types of audio-visual material can be produced locally to assist faculty and staff in developing effective and efficient instruction; examples include overhead transparencies, charts, graphs, posters, photographs, titles for motion pictures and slides, television graphics, and limited typesetting services.

The Media Laboratories, on the second floor of the Commons, provide facilities and equipment 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. Materials are available for purchase in the media supply room, and staff assistance is provided for the operation of media equipment.

Motion Picture Production provides a university-wide service in super 8 mm and 16 mm filming, including budgeting, production planning, filming, titling, limited animation, and sound recording. 'Two studios and an editing room are in the Commons for on-campus production activities.

Slide and Multi-Image Services is housed on the ground floor of the Commons (west) and provides consultation, design, and production of slides, slide series, and multi-image series.

Five large lecture halls in the Education Center are equipped with multi-media utilization systems, and each hall contains a multi-image, rear screen projection system which is remotely controlled from an electronic podium. This system can project television, 16 mm films, slides, and filmstrips, in any combination. Media utilization is scheduled through this service.

Television Services, located in the Communications Center in the basement of the Education Center building, is responsible for coordinating all university-related television activities including selection and purchase of television equipment, scheduling the use of television facilities and equipment, distribution of locally produced programs, the planning and production of video programming, video tape editing, duplication, video format changes, image enhancement, and electronic character generation. In addition, TV Services provides the university with a satellite downlink system for the reception of national satellite programming and an origination and distribution link with the Cedar Falls/Waterloo cable television system and the cable system linking the Cedar Falls Schools.

Television facilities include color studios, microteaching studios, control and editing rooms, engineering and maintenance facilities, and preview facilities.

## The Educational Clinic

The Educational Clinic is part of the Department of Educational Psychology and Foundations. Through its interdisciplinary 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-community collaboration, the clinic maintains a primarily instructional and behavorial 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 Iowa at the request of school officials, and performs such research as practicable along lines that provide increased understanding of the learning and remedial processes.

## Educational Opportunity Programs

The University of Northern Iowa places a high priority on providing quality education to financially disadvantaged and minority students. To fulfill this commitment for all students, the University has established the Office of Educational Opportunity Programs and Special Community Services.

The Educational Opportunity Programs are designed and coordinated specifically to meet our students' educational, social, and financial needs. A primary goal for the EOP staff is to provide supportive services to all Project students, thus enhancing the successful completion of the student's college career.

The Educational Opportunity Programs and Special Community Services structure includes the following five working components:

The University of Northern Iowa Center for Urban Education (UNICUE) 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. UNI-CUE works closely with numerous University departments in training future teachers to work in urban areas. In addition to offering tutorial assistance to students, the staff provide counseling and academic advice. The Center is also the site that houses college-level classes for non-traditional students and provides a forum for community agencies and organizations to interact. An innovative Early Childhood Communication Laboratory has been developed. The experimental "Head Start" program is designed to teach communication skills and prepare young children for elementary school.

The Spectal Services Progrmm is designed to serve 200 eligible Project students in a positive learning environment and provide academic and supportive services to increase the retention and graduation rate of Special Services students. The Program will serve fifty handicapped students from low-income families who have basic skills deficiencies. Underpreparation in learning skills is met with a strong organized Special Services Program designed to eradicate academic deficiencies. Therefore, the academic counseling component works closely with the Office of Learning and Instruction to provide the maximum impact on reducing academic deficiencies.

The Educational Opportunity Program (EOP) offers counseling, tutoring, and other appropriate supportive services to students who are admitted to the University through the EOP 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 students. EOP counselors also provide advice and direction on social and personal problems which might interfere with the student's academic progress.

The Graduate Educational Opportunity Program (GEOP) offers supportive services to low-income and minority group graduate students in the areas of counseling, academic advising, and financial assistance. Some graduate assistantships for EOP students are available through cooperation with academic departments of the university. In addition to actively recruiting students for the University of Northem Iowa graduate studies, the program provides information and assistance to EOP graduates of UNI who wish to take higher degrees at other institutions.

The Ethnic Minorties Cultural and Educational Center (EMCEC) 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 Falls-Waterloo communities in a totally minority environment. The Center has a variety of actual instructional performance methods for displaying various minority cultural and art forms. The Center's library facilities provide a reference point for those interested in examining literature, records, and tapes of minority cultures.

Inquiries regarding the Educational Opportunity Program and Special Community Services should be made to one of the following:

UNI-CUE, 715 East Fourth Street, Waterloo, IA 50703
Special Services Program, Bartlett Hall, UNI, Cedar Falls, IA 50614
EOP, Bartlett Hall, UNI, Cedar Falls, IA 50614
Graduate EOP, EMCEC, UNI, Cedar Falls, IA 50614
Ethnic Minorities Cultural and Educational Center, UNI, Cedar Falls, IA 50614
Inquiries not related to any specific area should be directed to the Assistant Vice President for Academic Affairs, EOP/SCS, University of Northern Iowa, Cedar Falls, IA 50614.

## 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 multiracial student body of 650 pupils in nursery school-kindergarten and grades one through twelve, including special education.

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 Reading Clinic

The Reading Clinic, part of the Department of Curriculum and Instruction, offers diagnosis and instructional services to students ranging from grades 1-12. These clinical services, offered to individuals and groups, form an integral part of the professional preparation programs in reading. Program majors provide the services under the supervision of qualified faculty and instructional staff. Services offered include reading diagnostic evaluations, individual and small-group remedial and enrichment instruction, consultative services to schools at the request of school officials, and research designed to increase understanding of teaching reading/language arts processes.

## The Speech and Hearing Clinic

This clinic offers speech and hearing sewices both to university students and others outside the university community. These clinical services form an integral part of the program of professional preparation in speech-language pathology and audiology. Majors in speech-language pathology and audiology carry out clinical services under the supervision of the instructional staff of the university. Services offered include audiological evaluations, speech and language evaluations, and remediation for individuals with speech, language, and hearing problems.


# Degree Requirements 

The University of Northern Iowa offers degrees at both the undergraduate and graduate levels. The graduate program is given in detail on pages 107 to 141. At the undergraduate level the University of Northern lowa offers five traditional baccalaureate degrees: the Bachelor of Arts, the Bachelor of Fine Arts, the Bachelor of Music, the Bachelor of Science and the Bachelor of Technology. The external degree of Bachelor of Liberal Studies is also offered by UNI, and details of this unique degree program are given on pages 48 and 49. Major goals in the programs leading to these degrees are the advancement of humane learning and the preparation of all students 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 significiant 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 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 students to engage in intensive study, to think for themselves, and to exercise discriminating judgment. It prepares the student for more advanced work if he or she 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 university 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 or her own vocation within the narrow confines of the day-to-day occupation, but rather a person enriched in mind and spirit and so stimulated that this person will seek with eagerness to contribute to the benefit of the world in which he or she 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 understanding necessary to good teaching, studying 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 or her time in the area of learning chosen for concentration. The student's 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 most of the other programs in order to include the necessary professional work and to approximate, as far as possible in a four-year period, the other major goals previously listed. 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.

## 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.

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 (economics, history, etc.), and speech.
2. Special teachers of art, industrial arts, music, physical education, and speech correction.
3. Early childhood and elementary teachers, kindergarten through sixth grade.
4. Middle SchoolJunior High School teachers in various areas of instruction.
B. Bachelor of Arts - 124 semester hours.

On this program students are prepared in the following areas:

1. Liberal Arts - Art, English, foreign language, mathematics, music, psychology, speech, social science, and science.
2. Vocational - Business, home economics, industrial arts, and physical education.
3. 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 have the equivalent of up to 45 semester hours accepted for transfer 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.

These hours of transfer work may be affected by a general university requirement that all work following completion of the first 65 semester hours must be taken at a four-year institution. Thus, a student who has earned more than 20 semester hours of college credit before or while completing requirements for R.N. certification may not be able to use all of the $\mathbf{4 5}$ semester hours for graduation requirements. Such individuals should consult the Director of Admissions concerning the application of this requirement in his or her situation.
b. Ten of the transfer hours of work received for R.N. certification are applied to General Education requirements in the areas of biology, chemistry, interpersonal relationships, and communications. Specifically, the 10 hours would be dispersed in the following way:
Category 1: Principles of the Physical Universe - 2 hrs.
Category 2: Life and Its Interrelationships - 4 hrs .
Category 3: Human Identity and Relationships - 2 hrs.
Category 9: Communicative Processes -2 hrs.
The student will be held to complete the 40-hour General Education requirement for a minimum of 30 additional semester hours of approved General Education courses with at least two or more hours from each of the remaining eight categories.
c. The student shall complete a minimum of 15 hours of $100-$ level courses from each of two of the five principal academic units of instruction. 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 major 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 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 Iowa 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:

Cytotechnology
Dentistry
Hospital and Health Administration

## 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 to the professional school so as to be able to take at the University of Northern lowa 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 lowa 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 Northem 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, Physical Therapy or Cytotechnology 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, Physical Therapy or Cytotechnology 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.

## 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 Admissions Office.
2. Cooperative Programs -
a. Two-Year Cooperative Nursing Program with the University of Iowa. Through a cooperative arrangement between the University of Northem lowa 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 lowa, 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 Iowa 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 Sciences.

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 lowa 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. Tentative 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 lowa.
b. Freshman Academic Program with the Allen Memorial School of Nursing. The University of Northem Iowa cooperates with Allen Memorial School of Nursing, Waterloo, lowa, 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 Consolidated Regional Laboratories located in Waterloo, lowa, to offer the first three years of work; Consolidated Regional Laboratories offers the fourth year. Applications should be made to the Registrar of the university and a copy of the combined program requested.
d. Associate of Applied Science in Dental Hygiene at Hawkeye Institute of Technology. The University of Northern Iowa provides the required arts and sciences courses on its campus for this program. Applications should be made to Hawkeye Institute of Technology.
e. Associate of Applied Science in Nursing at Hawkeye Institute of Technology. The University of Northern lowa provides the required arts and sciences courses on its campus for this program. Applications should be made to Hawkeye Institute of Technology.
f. Five-year Program in Hospital and Health Administration. The University of Northern lowa cooperates with the University of Iowa to offer the first three years of work; the University of lowa offers the fourth and fifth years. After satisfactory completion of the first year of the program at the University of

Iowa, the student receives the Bachelor of Arts degree from the University of Northern lowa, and completion of the second year at the University of lowa leads to the Master of Arts degree in Hospital and Health Administration. Application for the initial phase of the program may be made to the Director of Admissions at the University of Northern lowa and a copy of the combined program requested.
A student who expects to transfer to another institution should declare his or her special interest at the time of admission. This student will be assigned to an adviser who is familiar with the type of program being sought. Before seeing his or her adviser for the first time, the student should secure a current copy of the catalog of the school to which the transfer is planned and know its requirements thoroughly. The program of a student who remains more than one year at the University of Northern lowa must be cleared with the Coordinator of Academic Advising at the beginning of the sophomore year.
g. Three-year Program in Cytotechnology. The University of Northern lowa cooperates with Mayo School of HealthRelated Sciences, Rochester, Minnesota, to offer the first three years of work with the Clinic at Mayo offering Cytotechnology in the fourth year. Applications should be made to the Registrar of the university and a copy of the combined program requested.

## 3. Army Reserve Officers' Training Corps -

Four-, three-, and two-year Military Science programs are available for those students desiring to obtain a U.S. Army commission as a second lieutenant at graduation. The ROTC Basic Course affords students the opportunity to study the military organization without obligation for military service. The ROTC Advanced Course, however, does entail a commitment for further military service. Although the AROTC curriculum nor-
mally spans four years, it can be completed in as few as two years by qualified students with departmental approval. Additional information on the required prog:am of courses is listed under the Department of Military Science (see page 145) and further information may be obtained by contacting the department office, Old Auditorium, Room 39, UNI.

## Bachelor of Arts - Liberal and Vocational Arts Curricula

All candidates on this program will complete the following pattem:
Semester Hours
General Education . . . . . . . . . . . . . . . . . . . . . Minimum 40
Major, Minor, Foreign Language, Electives . . . . . . . . . . 84
Minimum
124
Not later than the beginning of the sophomore year each student enrolled on this program will choose one major from the list below. 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 or her 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
Asian Studies
Biology X
Biology Y
Biotechnolog
Chemistry
Chemistry-Marketing
Communication and Theatre Arts
Communications/Public Relations
Communications/Radio-TV
Communications/Radio-TV-Business
Community Health Education
Community Recreation
Computer Information Systems
Computer Science
Criminology
Earth Science
Economics
English
English Linguistics
English Linguistics and Modern Language
European Studies
French
General Studies
General Studies for Registered Nurses
Geography
Geology
German
History
Home Economics - Design and Human Environment
Home Economics - Dietetics

Home Economics - Family Services
Home Economics in Business Clothing and Textiles
Home Economics in Business Foods and Nutrition

## Humanities

Individual Studies
Industry
Latin American Studies
Management
Marketing
Mathematics A
Mathematics B-Computational Emphasis
Mathematics C
Music
Natural History Interpretation
Office Information Systems
Philosophy
Philosophy and Religion
Physics
Political Science
Psychology
Public Administration
Religion
Russian Area Studies
Science
Social Work
Sociology
Spanish
Speech-Language Pathology
Teaching English to Speakers of Other Languages (TESOL)
Theatre Arts
Therapeutic Recreation


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, and in human relations (19:070).

> A. Preparation for teaching in the secondary school or in special subjects.
> Semester Hours
> General education . . . . . . . . . . . . . . . . . . . . Minimum 40
> Common professional sequence . . . . . . . . . . . . . . . . . . 23
> Major minor, electives . . . . . . . . . . . . . . . . . . . . ..... 67
> 130
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
Profersional semester . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17
Subject field and electives . . . . . . . . . . . . . . . . . . . . . . 36
C. Preparation for teaching in the elementary school (kindergarten and grades 1-6)

Semester Hours
General education . . . . . . . . . . . . . . . . . . . . . Minimum 40
Common professional sequence . . . . . . . . . . . . . . . . . . . . 23
Major requirements . . . . . . . . . . . . . . . . . . . . . . . . . . 13-15
Professional semester . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17
Other requirements and electives . . . . . . . . . . . . . . . 36-38
130
D. Preparation for teaching in early childhood
education (nursery school and kindergarten).

Semester Hours
General education
Minimum 40
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 a minimum of 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.
Level I Semester Hours
20:017 Field Experience: Exploring Teaching ..... 1
20:030 Dynamics of Human Development. ..... 3
Level III (Before enrolling in Level II, the student must be officiallyadmitted to the Teacher Education Program.)
20:018 Teacher as Change Agent (field experience) ..... 1
20:040 Nature and Conditions of Learning ..... 3
25:050 Classroom Evaluation Instruments ..... 3
Level III
26:119 Schools and American Society ..... 4
Student Teaching -
28:1xx (Course number denotes area in whichexperience is gained: $28: 132,134,135,136$,$137,138,139$ ).8

Application for Admission to the Teacher Education Program must be made before enrolling in the Level II Professional Sequence courses. Application is usually made as a part of the student's declaration of a teacher education major. The student must pass such tests as may be prescribed by the Teacher Education Coordinating Council (TECC). To be approved, a student must have earned at least 24 semester hours of credit and must have at least a 2.40 grade index in all course work. TECC may grant provisional approval for students in exceptional cases but may not grant full approval until all standards have been met.

A student may, at the time of admission to the university, declare an intent to enter a teaching program and be assigned a teaching adviser from the 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.

A student must have a 2.40 GPA in her/his academic department or departmental approval; 2.40 GPA in sequence and methods course(s), not lower than a 2.00 in methods course(s); 2.40 in all work completed before student teaching; completion of all required methods courses (at least two if department requires more than two).
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 video-taped and directed observation as well as field experience and participation, culminating in the actual period of student teaching in the senior year.

Video-taped and directed observation give the student an opportunity to see the teaching-learning operation without becoming involved in the on-going activity itself. In the field experience and participation experiences, the student takes an active part under direction and guidance in the teaching-learning situation or other community activities.

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. These experiences give the student the background needed to make professional course work 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 teaching-learning activities in the classroom. The student receives eight (8), twelve (12), or sixteen (16) hours of credit and is evaluated on a credit/no-credit/withdrawal system. (See page 57.) Interinstitutional student teachers who enroll at UNI, including those on the Regents Universities Student Exchange Program, may be evaluated on a graded basis (e.g., $A, B, C, D, F)$ upon written request, at the time of application, from the Registrar of the home institution.

## Majors and Minors - Teaching

Each student preparing to teach in the secondary school or in a special subject will choose a major not later than the beginning of the sophomore year. The student will also select at least one minor if a minor requirement is indicated under the description of the major 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.

## Majors

## Art

Biology
Business
Chemistry
Communication and Theatre Arts
Early Childhood Education
Earth Science
Economics
Elementary Education
English
French
Geography
German
Health Education
History
Home Economics
Industrial Arts Education
Minors
Ast
Biology
Business
Chemistry
Coaching
Communication and Theatre Arts
Computer Science
Dance
Earth Science
Economics
Education of the Handicapped -
Secondary Level
English
French
Geography
German
Health Education
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/she fails to demonstrate competence.


## Bachelor of Fine Arts Degree

Programs available under this degree are a major in Art, offered by the Department of Art, and a major in Music Theatre which is an interdisciplinary major combining courses from the School of Music and Speech-Theatre of the Department of Communication and Theatre Arts. A minimum total of 130 semester hours is required for the degree. The Art major is designed to provide professional career training in all studio areas and requires a minimum of 75 semester hours of work in art. Music Theatre graduates are prepared for professional careers in the music theatre field 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.

## Bachelor of Fine Arts Degree Curricula

Candidates for the Bachelor of Fine Arts degree will complete the following pattern of work:

## Semester Hours

General Education . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

The Bachelor of Fine Arts degree is a highly specialized program which provides strong emphasis on work in professional career training. Two majors are available under this degree, a major in Art and a major in Music Theatre.

The Art major offered on the B.FA. requires a minimum of 75 semester hours in art. Normally this major does not provide for certification to teach. Additional hours are necessary to meet certification requirements.

An exhibition which demonstrates competency is required during the senior year of each candidate for the Art major under the B.FA. degree. (See Department of Art, page 63, for additional information.)

The Music Theatre major is an interdisciplinary program which is offered by the School of Music. Requirements for the major are:

| Music core: | 53 hours |
| :--- | :--- |
| Theatre core: | 24 hours |
| Total: | 77 hours |

Participation in a performance organization and/or opera/music theatre classes is required of all Music Theatre majors every semester in residence. A basic knowledge of a foreign language is recommended.

The approval of the faculty, undergraduate coordinator in music, and the Director of the School 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. (See School of Music, page 90, for additional information.)

## Majors

Art
Music Theatre

12:240. Theory of Accounts - 3 hrs.
History and development of accounting principles; theoretical problems related to determination of income; presentation of financial condition. Prerequisites: 12:130 or equivalent; and consent of MBA adviser.

## 12:262. Managerial Accounting - 3 hrs.

Use of accounting data in managerial decision making process and in the analysis and control of business operation. Prerequisites: 12:030 and 12:031; or 12:230; or equivalent; and consent of MBA adviser.

## 13 Marketing

13:140. Consumer Behavior and Marketing Decisions - $\mathbf{3}$ hrs.
Recent findings of psychologists, sociologists, and anthropologists, and marketers in relationship to internal and external influences on buyer behavior and marketing-related decision making. Prerequisite: 13:152.

## 13:141. Retail and Wholesale Marketing - 3 hrs .

The study of retailing and wholesaling fundamentals with the integration of marketing, economics, and behavioral sciences. Prerequisites: 13:152; 13:140.

## 13:143. Retail Merchandising and Management - 3 hrs.

Study of retail management problems from merchandising/mathematical deci-sion-making strategy concept. Trade area analysis; financial analysis including expense and profit computations; pricing policies; inventory evaluation; and sales and stock record analysis. Prerequisites: 13:140; 13:141; 13:149; 13:151; 13:152.

## 13:147. Advertising Management - 3 hrs .

Decision making in advertising, consumer promotion, sales promotion, and public relations. Includes market analysis, establishing promotion objectives, budgeting, media/promotion mix selection, communication techniques, and evaluation of effectiveness. Prerequisites: $13: 140 ; 13: 149 ; 13: 151 ; 13: 152 ; 13: 171$.

## 13:149. Marketing Management I-3 hrs.

Integration of major marketing functions from a managerial perspective. Emphasis on tactical aspects of marketing mix: product, price, place, and promotion. Prerequisite: 13:152 (undergraduates) or approval of MBA adviser for graduates.

## 13:151. Marketing Research - 3 hrs .

Procedures used in defining a marketing problem and canrying out the research necessary for its proper solution. Prerequisites: 15:020; C - or better in 15:070.
13:152. Princtples of Marketing - 3 hrs.
A survey course dealing with the role of marketing in society, customer determination and selection, product management, channels of distribution, pricing concepts, and promotional activity within an economic and business environment. Prerequisites: 92:024 or 92:053; junior standing. Registration requires a cumulative UNI GPA of 2.2 or better, or the equivalent.
13:153. Sales Management - 3 hrs.
Study of primary sales management functions from a decision-making perspective by developing field management tools and procedures including recruiting, selection, training, motivating and developing sales personnel, coaching and performance improvement, and time and territory management. Prerequisites: 13:140; 13:149; 13:151; 13:152; and 13:171.
13:154. Marketing Management II -3 hrs .
Emphasis on problems, decisions, and decision-making processes of marketing managers in developing marketing programs; theoretical aspect will be integrated with practical application. Prerequisites: 13:140; 13:149; 13:151; 13:152; 13:175.
13:155. Industrial Marteting - 3 hrs.
Study of non-consumer marketing; input-output analysis, buyer company and seller company relationships, organizational behavior, credit policies, financial management and product specification, and industrial marketing practices. Prerequisites: 13:152; 15:151; 15:153.
13:157. International Marketing - 3 hrs.
Marketing practices and trends in businesses serving foreign markets. Prerequisites: 13:152.

## 13:169. Internship-Marketing - 2-8 hrs.

Full-time internship in a marketing-related business for a minimum of eight weeks. Prerequisites: departmental approval; 2.5 cumulative UNI grade point average; and senior standing.
13:171. Promotional Strategy -3 hrs .
Consumer decision making and relationship to promotional processes; marketing communications theory, strategies, and techniques; managing the promotional mix: sales management, sales promotion, advertising, publicity/public relations, and packaging. Prerequisites: 13:140; 13:152.

13:172. New Venture Creation - 3 hrs.
Examines skills and procedures needed to plan and create a new ventures. Emphasis on self-assessment, first venture analysis, and creation of compreheas sive business plan. Prerequisites: $13: 140 ; 13: 152$.
13:173. Venture Development and Manafement - 3 hrs .
Procedures for organizing, financing, and implementing a new venture; many ing start up, growth, and organizational management. Prerequisites: $13: 140$; 13:149; 13:151; 13:152; 13:172.
13:175. Marieting Stritegy and Analyuis - 3 hrs. Application approach to the building of marketing strategies based on mas opportunity analysis; segmentation; forecasting; quantitative evaluation; intec tion. Prerequisites: 13:140; 13:152.
13:179. Cooperative Education in Marketing - 1-6 hrs.
Offered only on ungraded (credit/no-credit) basis.
13:180. Special Problems - Marketing - 1.3 hrs .
Directed readings, Small Business Institute activities, or marketing computer simulation projects under direct supervision of sponsoring faculty member Prerequisites: consent of department head; 13:140; 13:149; 13:151; $13: 152$.
13:181. Senior Marketing Experience - 3 hrs.
Departmentally approved experiential applied study under direct supervision of sponsoring faculty member in one of six areas of specialization: advertisint entrepreneurship, marketing management, marketing research, retailing, or sales. Prerequisites: approval of department head, and 3.0 or better grade point average in 13:140; 13:149, 13:151 and 13:152.
13:183. Marketing Research Methods - 3 hrs.
Methods of implementing marketing strategy based on detailed empirical decision making. Emphasis on research design and statistical analysis. Prerequisituea 13:140; 13:152.

## 13:185. Advanced Marketing Research - 3 hrs .

Experimental study with marketing research project management, developmert and execution utilizing MIS, computer programs, database management, interaction with actual business problems. Prerequisites: $13: 140 ; 13: 149 ; 13: 151^{4}$ 13:152; 13:183.
13:189(g). Seminar in Marketing Policy - 3 hrs.
Study of corporate marketing management concepts and attendant theorices distinguishing characteristics of marketing organizations, and marketing management career opportunities. Prerequisites: senior standing; and prerequisite of corequisite: 13:175.

## 13:198. Independent Study

Prerequisite: departmental consent; 3.0 cumulative UNI grade point average; senior standing.

## 13:251. Marketing Theory - 3 hrs.

Evolutions of marketing concepts and future marketing influences; contriburtions of economic and behavioral sciences to marketing thought; implication of marketing theory to management practice. Prerequisites: 13:263 and consent of MBA adviser.
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. Prerequisites: 13:263; and consent of MBA adviser.
13:263. Marketing Management - 3 hrs .
Integrated approach to marketing from managerial viewpoint using econom quantitative, and behavioral concepts in analyzing and developing framework ${ }^{t}$. decision making and implementing a marketing program. Prerequisites: 13:14 and consent of MBA adviser.
13:285. Individual Readings - $1-3 \mathrm{hrs}$.
May be repeated for a maximum of 4 hrs. Prerequisite: departmental consent, and consent of MBA adviser.
13:297. Practicum - 1.3 hrs .
Prerequisite: departmental consent and consent of MBA adviser.
13:299. Research - 1-6 hrs.
Prerequisite: departmental consent and consent of MBA adviser.

## Bachelor of Music Degree

Majors on this degree program have the choice of an educational major or two professional majors: each requires a total of 130 semester hours for the degree. The Music Education major carries certification to teach music in grades K-12. The Performance major with emphases in voice, piano, organ and band-orchestral instruments, and the TheoryComposition major are professional programs designed to prepare students for careers as artists-performers or composers, or for entrance to graduate schools where further excellence in a performance area might be pursued. Students earning the Bachelor of Music degree are prepared as performers, college teachers, and in all areas where a high degree of music or performing skill is required.

## Bachelor of Music Degree Curricula

All candidates for the Bachelor of Music degree will complete a pattern similar to the following:

Semester Hours
General Education .40
Music requirements (applied, theory, history and literature, conducting, ensembles, recital, composition, electives)
General electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10-25 130
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 page 45) and a Music Methods emphasis (see Music Education major, page 91). The Music Education major carries certification to teach for grades K-12. (A course in human relations and a course in American history or American government are also required for certification to teach.)

The approval of the faculty, undergraduate coordinator of music, and the Director of the School 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 theatre, and other ensembles, is required of all degree students every semester in residence. It is recommended that students who major in Voice, Music Performance, and Theory-Composition complete at least 10 semester hours in a foreign language.
(See the School of Music, page 90, for additional information.)

## Majors

Music Education
Performance
Theory-Composition

## Bachelor of Science Degree Curricula

The Bachelor of Science degree should be elected by those students who are preparing for careers in areas where effective application of knowledge and training requires a higher degree of concentration in subject matter and cognate areas, particularly in advanced-level course work. This degree is especially appropriate for students planning postbaccalaureate study in graduate or professional schools.

Majors for the Bachelor of Science degree include:

## Applied Physics

## Biology

Chemistry
Geology
Physics
Requirements include:

1. A minimum of 56 hours in the subject and cognate areas with: a. at least 36 hours in the subject area;
b. at least one 100 -level course in cognate areas;
2. The completion of undergraduate research or internship carrying 1-2 semester hours of credit applicable to either the subject or cognate area(s). This project should involve original work and normally should result in the completion of a written report.
3. The completion of the General Education requirement of at least 40 semester hours selected from courses included in the twelve General Education categories.
Since this degree assumes a higher degree of concentration in subject matter, a major leading to this degree will ordinarily require at least eight 100 -level semester hours of credit more than an identically named major leading to a Bachelor of Arts degree.
Majors
Applied Physics
Biolog
Chemistry
Geology
Physics

## Bachelor of Technology

This degree has four program areas that provide a choice of majors: Construction Technology, Energy and Power Technology, Manufacturing Technology, and Vocational Technical Education. The Vocational Technical Education Major leads to a degree with certification to teach.
A. Construction Technology Major - 130 hours.

This major is designed to prepare individuals for positions in the construction industry such as project managers, project coordinators, project estimators, material and equipment distributors, labor-management relations, personnel, inspectors, researchers, technical specification writers, sales managers, manufacturers' representatives, maintenance supewisors, construction supervisors and quality control specialists.
B. Energy and Power Technology Major - 130 hours.

This major is designed to prepare students for industrial supervisory and leadership positions that are associated with the field of electronics and mechanical engineering. Graduates from the program may be employed in one of the following divisions of industry: research and development, production and manufacturing, field sevice and product utilization, sales and distribution, training, technical representation, technical writing, and industrial maintenance.
C. Manufacturing Technology Major - 130 hours

This program has two areas of concentration for this degree: Production Technology and Mechanical Design Technology. This major is designed to prepare persons for technical managerial or supervisory positions in industrial firms or businesses. Graduates from these programs are employed in industry areas such as: design and development, engineering, production supenision, field service and product utilization, safety, quality control, training, technical representation, technical sales and distribution, or personnel.
D. Vocational Technical Education Major - 130 hours.

This major is designed to prepare teachers for secondary and post-secondary technical programs, and also requires recent and significant technical work experience in industry in the major area. The concentrations may be: Construction Technology, GraphicArts Technology, Manufacturing Technology, Mechanical Design/Drafting, Power and Energy Technology, or a technical area with occupational competence.

## 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 (pages 143 to 208). Majors offered under this degree are:

Construction Technology
Energy and Power Technology
Manufacturing Technology
Vocational Technical Education
The General Education program of 40 semester hours is required on all majors under this degree.

## Teaching Program

The teaching program requires the completion of a minimum of 130 semester hours. All candidates in the teacher preparation program for the Bachelor of Technology will choose the appropriate concentration to total 36 semester hours no later than the beginning of the sophomore year.

This program is designed to prepare teachers for trade, industrial and technical areas at secondary and post-secondary schools and institutions with vocational and technical programs.

## Technology Program

Technology programs require the completion of 130 semester hours which include the 40 semester hours of General Education. Candidates on technology programs will complete one of two patterns for:
A. Construction Technology - 130 hours
B. Energy and Power Technology - 130 hours
C. Manufacturing Technology - 130 hours

## Majors

Construction Technology
Energy and Power Technology,
Manufacturing Technology
Vocational Technical Education

## Bachelor of Liberal Studies

In addition to the preceding conventional degree programs, the University of Northem Iowa offers the Bachelor of Liberal Studies degree which was approved in July 1977 by the Iowa State Board of Regents. The B.L.S. is an external degree that provides baccalaureate educational opportunities to those who cannot attend college as full-time, oncampus students. The degree program is the result of a cooperative effort by the three Iowa Regents universities, and each of the universities offers the degree with the same curriculum requirements.

A total of 124 semester hours ( 186 quarter hours), including trans ferable credit earned, is required for graduation. Formal admission to the program requires an Associate of Arts or an Associate of Science degree from an accredited two-year college, or at least 62 semester hour: ( 93 quarter hours) of college work acceptable for credit toward graduationat one of the three Iowa Regents universities with a grade average of at least 2.00 .

## Bachelor of Liberal Studies Degree Curricula

The Bachelor of Liberal Studies is an external degree made available through the cooperative efforts of the three Iowa Regents universities: the University of Northern Iowa, Iowa State University, and the University of Iowa. Under the B.L.S., baccalaureate educational opportunities are provided to those who cannot attend college as full-time, on-campus students. Each of the three universities offers the degree with the same curriculum requirements. The program at the University of Northern Iowa is under the supervision of the Dean of Continuing Education and Special Programs.

Admission to the Program: As a basis for further study leading to the baccalaureate degree, each student entering the program must have eamed either:

1) an Associate of Arts or an Associate of Science degree from an accredited, two-year college, or
2) at least 62 semester hours ( 93 quarter hours) of credit in collegiate work acceptable for credit toward graduation at one of the Iowa Regents universities, with a grade point average of at least 2.00 .
At the time of admission the student, in consultation with the BLS adviser, is expected to present a statement of educational objectives ands; tentative program for further study which is consistent with those objectives and which will meet the degree requirements listed in the following statements. (This tentative program may be revised as work proceeds.)

Total Credit Requirements: A total of at least 124 semester hours; ( 186 quarter hours) of credit, including transferable credit earned, is required for graduation. The total must fulfill the following specifications:

1) 45 semester hours ( 70 quarter hours) of credit earned at four-year colleges in courses defined as "upper-level" at the colleges in which the courses are taken. (At the University of Iowa and the University of Northem Iowa, upper-level courses are those numbered 100 or above; at Iowa State University upper-level courses are those numbered 300 or above.)
2) 45 semester hours ( 70 quarter hours) of credit earned in courses at the Iowa Regents universities.
3) 30 semester hours ( 45 quarter hours) of credit eamed after admission to the B.L.S. program from the specific Regents university granting the degree.
General Education Requirements: Students must meet the basic undergraduate core requirements as specified and determined by the policies of the degree-granting institution. (Note - Requirements are those specified as Group Requirements of the College of Sciences and Humanities at Iowa State University, General Education at the University of Northern Iowa, and Basic Skills and Core Courses of the College of Liberal Arts at the University of Iowa.)

Program Distribution Requirements: To insure sufficient breadth of study, each student's program must include, in addition to the credit used to fulfill the general education requirements previously stated, a minimum of 12 semester hours ( 18 quarter hours) of credit in each of three (3) areas selected from the following list. Of the total 36 semester hours (54 quarter hours) of credit applied to fulfill this requirement, 24 semester hours ( 36 quarter hours) must be in upper-level credits as

defined by the institution in which the courses are taken, with at least six (6) semester hours ( 9 quarter hours) of upper-level credits in each of the three areas chosen.
a) Humanities
b) Communications and Arts
c) Natural Sciences and Mathematical Disciplines
d) Social Sciences
e) Professional Fields (such as Business, Education, Home Economics) as approved by the degree-granting institution.
The same credits may not be used to fulfill the general education requirements and also the distribution requirements stated above.

Grade Requirements: A grade average of at least 2.00 must be earned in all work offered for the degree in all work completed after admission to the program and in all upper-level course work.

Questions concerning Bachelor of Liberal Studies course development, degree implementation, and delivery should be directed to the Office of Continuing Education and Special Programs, Room 144, Gilchrist Hall, UNI.

Information and details regarding admission to the BLS program, evaluation of prior academic work, program advising, and declaration of a major may be obtained from the coordinator, Individual Studies Program, Baker Hall 59, UNI, Cedar Falls, Iowa 50614. Iowa residents may call the BLS adviser on the toll-free line (1-800-772-1746).

## 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.

## General Education Program

All candidates for the baccalaureate degrees on any curriculum are required to complete the designated program in General Education.

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.) The student is advised to complete the General Education program as early as possible in his/her university career, preferably by the end of the sophomore year.

Requirements of the General Education Program:

1. The General Education program at UNI shall consist of at least 40 semester hours selected from courses structured in twelve categories.
2. A student is required to take two or more credit hours in each of the categories. In category twelve, "Physical Education and Health," each student is required to take two hours of physical activity courses.
3. Any General Education course which is taken for major credit shall satisfy the requirement of taking a course in that specific category where the course is fixed in the General Education program, but it may not be counted toward the required 40 hours.
4. To meet the 40 -hour requirement, students will have room for electives in General Education. The selection of General Education electives shall be subject only to these limitations: no more than eight hours may be counted toward General Education in any of the first eleven categories, no more than four hours may be counted in the categony, "Physical Education and Health," and no more than four hours of physical education activity courses may be applied toward graduation requirements.
5. Students admitted to the university in the fall of 1983 and later are required to take a course with a scheduled laboratory from either category one (Principles of the Physical Universe) or from category two (Life and Its Interrelationships) prior to receiving any undergraduate degree from the University of Northern Iowa.
6. No more than three courses with the same departmental prefix number may be counted as meeting the General Education requirements for a given student. This rule does not apply to onehour physical education courses.
The General education categories and courses within each category are as follows:
7. Principles of the Physical Universe

82:020 The Physical Sciences - 3 hrs .
82:031* Activity Based Science I - 3 hrs.
86:044* General Chemistry I - 4 hrs.
87:010 Astronomy - 3 hrs .
87:011* Astronomy Laboratory - 1 hr .
87:021 Elements of Weather - 3 hrs.
87:031* Physical Geology - 3 hrs.
88:011* Conceptual Physics - 3 hrs.
88:054* General Physics I - 4 hrs.
97:031* Elements of the Natural Environment - 4 hrs.
*Fulfills laboratory requirement number 5.
2. Life and Its Interrelationships

82:032* Activity Based Science II - 3 hrs.
84:015* Laboratory in Life Science - 1 hr .
84:021 Life: Emvironmental Relationships - 3 hrs.
84:023 Life: Adaptation and Survival - 3 hrs.
84:028 Biosphere: Life and Its Interrelationships - 3 hrs.
87:035* Earth History - 4 hrs.
99:010 Human Origins - 3 hrs.
*Fulfills laboratory requirement number 5.
3. Human Identity and Relationships

31:057 Human Relationships and Sexuality - 3 hrs.
40:008 Introduction to Psychology - 3 hrs.
63:010 Language and Culture - 3 hrs .
64:030 What is Religion? - 3 hrs.
65:021 Introduction to Philosophy - 3 hrs.
65:142 Ethics-3 hrs.
68:167 The Uses of the Humanities in Becoming Human- 3 hrs.
98:060 Social Problems - 3 hrs.
4. Societies: Institutions, Systems, Ideologies

45:040 The American Social Welfare Institution - 3 hrs.
92:024 Economics for General Education - 3 hrs.
94:024 Politics for General Education- 3 hrs.
94:026 World Politics - 3 hrs.
97:010 Hurnan Geography - 2 hrs.
98:058 Principles of Sociology - 3 hrs.
99:011 Culture, Nature, and Society - 3 hrs.
5. Sources of Western Civilization

68:021 Humanities I - 4 hrs.
68:022 Humanities II - 4 hrs.
6. Civilization and Culture of the United States

62:053 American Masterpieces - 3 hrs.
90:030 Introduction to Urban Life - 3 hrs.
94:010 Survey of American Politics -2 hrs.
96:014 United States History to 1877-3 hrs.
96:015 United States History Since 1877-3 hrs.
7. Other Cultural and Sub-Cultural Traditions

62:055 Native American and Chicano Literature - 3 hrs.
62:057 Afro-American Literature - 3 hrs.
64:124 Religions of the World - 3 hrs.
68:124 Foreign Area Studies: China - 3 hrs.
68:125 Foreign Area Studies: India - 3 hrs.
68:127 Foreign Area Studies: Middle East - 3 hrs.
68:128 Foreign Area Studies: Africa - 3 hrs.
68:130 Culture of the Chetto - 3 hrs.
96:070 Latin American Civilization - 3 hrs .
99:132 North American Indians - 3 hrs.
99:137 South American Indians - 3 hrs.
8. Environment, Technology, and the Future

01:059 Environment, Technology, and Society - 3 hrs.
33:005 Production Systems - 2 hrs .
33:020 Communication Systems - 2 hrs .
33:032 Power Systems - 2 hrs.
65:170 Present Predicament - 3 hrs.
66:032 Introduction to Mass Media - 3 hrs.
68:189 Seminar in Environmental Problems - 3 hrs.
86:030 Contemporary Chemical Problems - 3 hrs.
86:031 Socio-Economic Chemistry - 1 hr .
87:036 Spaceship Earth - 3 hrs.
88:010 Physics and the Environment - 3 hrs.
94:020 Contemporary Political Problems - 3 hrs .
97:025 World Geography - 3 hrs.
97:050 Communicating Through Maps - 2 hrs.
9. Communicative Processes

50:026 Fundamentals of Speech - 3 hrs.
50:034 Human Communication - 3 hrs.
50:139 Principles of Discussion - 3 hrs.
62:003 Intermediate Writing: Exposition - 3 hrs.
7x:xcx Any course(s) in a foreign language
10. Mathematical and Scientific Processes

65:119 Philosophy of Science- 3 hrs.
65:145 Logic - 3 hrs.
80:020 Survey of Mathematical Ideas - 3 hrs.
80:040 Basic Collegiate Mathematics - 4 hrs.
80:046 Elementary Aralysis - 4 hrs.
80:072 Introduction to Statistical Methods - 3 hrs.
81:025 The Computer in Society - 3 hrs.
81:070 Introduction to Programming - 3 hrs.
82:175 The Nature of Science - 2 hrs.
11. Artistic Processes

50:020 Introduction to Theatre - 3 hrs .
50:031 Oral Interpretation - 3 hrs.
52:020 Exploring Music - 3 hrs.
60:001 The Visual World - 3 hrs.
62:031 Introduction to Literature - 3 hrs.
62:035 Introduction to Film - 3 hrs .
65:143 Aesthetics-3 hrs.
12. Physical Education and Health*
(Minimum: 2 hours of physical activity courses; maximum: 4 hours)
31:030 Basic Nutrition - 2 hrs.
41:015 Personal Health - 2 hrs.
42:001 Physical Education - Activity Courses - 1 hr.
(Physical Education Activity courses listed 42:A01 through 42:A41 meet 42:001 General Education requirements for Category 12.)
*Not more than four hours of physical education activity courses may be applied toward general education or graduation requirements.

## Program Certificates

The University of Northern Iowa makes available, in addition to traditional programs, the opportunity for students to earn Program Certificates. Program Certificates provide an altemative to programs leading to a degree, a major, or a minor; they certify that an individual has completed a program approved by the university. The interested student should consult the department listed or the Registrar's Office, which serves as the centralized registry. Some of the certificates are interdisciplinary and involve several departments; however, only one department has been listed as the contact.

## Program certificates now available include:

Department of Educational Psychology and Foundations
Educational Alternatives Certificate
School-Community Relations Certificate
School Staff Group Leadership Certificate
Schooling and Childlife Certificate
Small-Town Non-Urban Education Certificate
Social Foundations of Education Certificate
Department of Geography
Cartography Certificate
Department of Information Management
Training and Development in Business Certificate

Department of Modern Languages
Bilingual Program Certificate in French, Level One Bilingual Program Certificate in French, Level Two Bilingual Program Certificate in German, Level One Bilingual Program Certificate in German, Level Two Bilingual Program Certificate in Portuguese, Level One Bilingual Program Certificate in Portuguese, Level Two Bilingual Program Certificate in Russian, Level One Bilingual Program Certificate in Spanish, Level One Bilingual Program Certificate in Spanish, Level Two International Commerce Certificate Latin American Studies Certificate Teachers in Bilingual Areas (Spanish) Certificate Translation and Interpretation (All Languages) Certificate
School of Music
Music in Special Education Program Certificate
Department of Home Economics
Gerontology Program Certificate
Department of Social Work
Substance Abuse Counseling Certificate
Department of Socioloty and Anthropology
Skills in Social Research Certificate

## Requirements for Graduation

In addition to the completion of one of the baccalaureate degree programs, there are other specific requirements for graduation which apply to all undergraduate students seeking any bachelor's degree, other than the Bachelor of Liberal Studies. These are listed below. See pages 111, 134 and 138 for graduation requirements for a graduate degree program.

## 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 successfully complete student teaching and achieve a cumulative grade index in all course work attempted, at this university and elsewhere, of at least 2.40 to be recommended for graduation. The student must also achieve a cumulative grade index of 2.40 on all work attempted at the University of Northern lowa.
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; the student must also achieve a cumulative grade index of 2.00 on all work attempted at the University of Northern Iowa.
Note: A student may be held by his or her academic department to specific grade point requirements, for the major work andlor graduation, which are higher than the grade point requirements for all
uniwersity students. Students are advised to consult the section of this catalog that lists the specific major.

If a student has failed to be recommended for graduation because of scholastic average, the deficiency may be removed in a manner approved by the Committee on Admissions and Retention.

## C. Communication

Competence in reading, speaking, and writing is required of all candidates seeking degrees or university recommendations for certification. All students who enter UNI on or after fall semester 1978 who are candidates for baccalaureate degrees are required to demonstrate competence in writing by passing the Writing Competency Examination.

## D. Foreign Language Competency Requirement

Students entering UNI who graduate from high school in 1989 are required to demonstrate a level of competence in a foreign language equivalent to that achieved after the second semester at the college level. Students entering UNI who graduate from high school in 1990 and after are required to demonstrate a level equivalent to that achieved after the third semester at the college level. One year of foreign language in high school is considered to be equivalent to one semester of foreign language at the university.
The foreign language competency requirement can be satisfied in the following ways:

1. Satisfactory* completion of three years of high school study in one foreign language (two years for 1989 graduates).
2. Satisfactory* completion of a combination of high school and college study in one language equivalent to the competence achieved after the third semester at the college level (second semester for 1989 graduates).
3. Satisfactory performance in an achievement examination measuring proficiency equivalent to that attained after the third semester of college study in one foreign language (second semester for 1989 graduates).
*Satisfactory completion means a minimum grade of "C" in the last course taken to meet this requirement.

## E. Advanced Courses

At least 10 hours of work in a major in courses numbered 100-199 and taken at this university.

## F. Maximum Credit by Examination

A maximum of 32 semester hours of credit earned by examination or by open credit is applicable toward degree requirements. This includes credit earned by CLEP, by department examination, by Advanced Placement, and credit established by examination of other colleges and universities.

## C. 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 Director of the School of Health, Physical Education and Recreation.

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.

## H. Listing of Candidates for Graduation

A student may be listed as a candidate for graduation at the end of a semester if the completion of work for which he or she 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 the student is registered.
I. 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.
J. 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

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 Student 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.
7. A student must have a 2.40 g.p.a. in her/his major and minor. A student whose g.p.a. in either the major or minor is 2.20-2.39 may be recommended for certification in the area in which he/she is deficient with department approval.
[^0]
## 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 certification 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 to be taught. Approvals are issued by the lowa Department of Public Instruction on the recommendation of an acceptable preparatory educational institution. To secure the recommendation of the University of Northern lowa, the student must usually meet the requirements for a teaching major or a teaching minor (or equivalent) 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 wilf expect such students to demonstrate excellence of scholarship and meet standards required of its own graduates. Such students must have eamed at least 20 hours of residence credit and at least 12 semester hours must be in the area for which approval is requested.
lowa requires a course in human relations and a course in American history or American government for all certificates.

For additional information, contact the Office of the Registrar, 227 Gilchrist Hall, University of Northern Iowa, Cedar Falls, Iowa 50614.

## Hours of Credit Needed to Renew or Reinstate a Certificate

Renewal and reinstatement requirements are established by the loway State Board of 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 teacher-education institutions. 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

## The Placement Center

Registration with the Placement Center is recommended for all individuals who expect to graduate from the University of Northem Iowa. All students are advised to register with the Placement Center no matter what their post-graduation plans are since it is extremely difficult to compile a set of credentials including references following graduation.

## Graduate Curricula

The University of Northern lowa offers eight graduate degrees:
A. Master of Arts - a minimum of 30 semester hours.

Majors
Art
Audiology
Biology
Business Education
Chemistry
Communication and Theatre Arts
Communications and Training Technology
Computer Science Education
Counseling
Earth Science
English
English Linguistics
French
General Psychology
Geography
German
Health Education
History
Home Economics
Industrial Arts
Library Science
Mathematics for Elementary and Middle Schools (K-9)
Music
Physical Education
Physics
Political Science
Science
Science Education
Science Education for Elementary Schools (K-6)
Social Science
Sociology
Spanish
Speech-Language Pathology
Teaching English to Speakers of Other Languages (TESOL)
Technology
TESOLMOdem Languages
Translation and Interpretation
(Spanish/English)
Two Languages: French/German, Spanish/French, German/Spanish Mathematics
B. Master of Arts in Education - a minimum of 30 semester hours.

## Majors

College Student Personnel Services
Computer Applications in Education
Early Childhood Education
Education of the Gifted
Educational Media
Elementary Education
Elementary Principalship
Elementary Reading and Language Arts

Middle School/Junior High School Education
Reading Education
School Business Management
School Counseling
Secondary Principalship
Secondary Reading
Special Education
Teaching

General Educational Psychology
C. Master of Business Administration - a minimum of 30 semester hours.
Major
Business Administration
D. Master of Music - a minimum of 30 semester hours.

## Majors

Composition Music History
Conducting
Performance

## Music Education

E. Specialist - a minimum of 30 semester hours beyond the master's degree.
Major
Science Education
F. Specialist in Education - a minimum of 60 semester hours beyond the master's degree.

Majors
College Student Personnel Services
Curriculum Coordinator
Elementary Principal
Reading Education
School Business Management
School Psychology
C. Doctor of Education - a minimum of 60 semester hours beyond the master's degree.
H. Doctor of Industrial Technology - a minimum of 64 semester hours beyond the master's degree.

Secondary Principal
Special Education:
Administration Emphasis
Curriculum Consultant Emphasis
Superintendent


## Academic Regulations

## Academic Program: Student Load

The registration of every student is subject to the approval of her/his adviser.

The regular work of an undergraduate student for the fall or spring semester usually consists of 16 or $\mathbf{1 7}$ hours. First semester students are limited to a maximum of 18 hours.

Students may register for hours up to and including the limits indicated below without obtaining special permission:
Probation and Warning Students. ..... 14
All Other Undergraduates ..... 18
Graduate Students ..... 15
Undergraduate students who wish to register for an overload mustcomplete a Student Request Form with their cumulative UNI gradepoint average indicated and submit it to their adviser and to the AssistantVice President of Academic Affairs for approval prior to registration.Graduate students should submit the form to their advisers and to the
Dean of the Graduate College. Students who do not have the request approved in advance will have to wait until the advanced registration period ends before submitting the form and adding hours above the established limits. A 3.0 or aboveg.p.a. at UNI will usually be required for an overload.

The normal maximum undergraduate student load during the summer session is one semester hour per week of instruction. Undergraduate students who wish to register for an overload must seek approval through a Student Request Form submitted to their adviser and to the Assistant Vice President for Academic Affairs. A 3.0 or above cumulative g.p.a. at UNI normally will be required for an overload approval.

The maximum graduate student load during each semester of the academic year is fifteen (15) hours. Persons employed full time should not register for more than six (6) hours of graduate credit in any semester of the academic year.

The normal maximum graduate student load during the eight-week summer session is eight (8) hours; that normally permitted during each four-week split summer session is four (4) hours; that during the twoweek post session, two (2) hours.

Exceptions to load restrictions for graduate students may be granted only by the Dean of the Graduate College.

A student may expect to devote up to three hours a week in class or study for each hour of credit for which the student is enrolled.

## Classification of Students

Freshman
Sophomore
Junior
Senior
eclaration of Major -
tatement of Further Work

Earned Semester Hours
less than 30
30-59
60-89
90 and over

## Declaration of Major -

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 with 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 hours of credit and has declared a major, he or she 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 make a change in his or her 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.

Students may add classes, without approval, during the first seven (7) instructional class days of a semester. After the seventh instructional day of the semester and before the end of the first one-sixth of the semester the student must have departmental approval to add a class. For the summer sessions a proportionately equal amount of time is allowed at the beginning of a session for adding classes.

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 student's adviser, and the head of the department in which the course is offered. Courses dropped after the deadline for dropping with a $W$ (Withdrown), which is 10 calendar 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, the student's adviser, and the head of the department in which the courses are offered may approve a grade of $W$.

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

## 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 the percentage indicated in the table below, beginning with the date of formal withdrawal with the Registrar. The amount of reduction will vary from $90^{*}$ to $25^{*}$ percent through the fourth week of a regular semester, with no refund or reduction after the fourth 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.)

| Summer |  |  |  |
| :---: | :---: | :---: | :---: |
| Percentage | Semester | Withdrawal on day** | Number - |
| of fee | Withdrawal by end | Regular schedule | Short schedule |
| reduction of week* ${ }^{\text {* }}$ number - (8-week or longer sessions) (4-week sessions) |  |  |  |
| 90 | 1 | 1-3 | 1-3 |
| 75 | 2 | 4-5 |  |
| 50 | 3 | 6-7 | 4-5 |
| 25 | 4 | 8-9 | 6-7 |
| 0 | later than 4th week | 10 or later | 8 or later |

-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 completely from school, initiates the withdrawal through the Office of the Registrar. Those students who live in residence halls must also cancel the housing contract through the hall coordinator of the residence hall in which they live. Students who wish to drop one or more courses and yet remain enrolled should consult the section, "Change of Registration."

A student who has enrolled but decides not to come to the University of Northern lowa should advise the Office of the Registrar in writing at as early a date as possible of the need to cancel the registration, listing the reason(s) for withdrawing from the university. Withdrawal after classes begin will result in a tuition charge.

## 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 $\$ 6.00$ is charged to replace the plastic ID card and $\$ 3.00$ to replace the registration certificate. Replacement of both items would cost $\$ 9.00$.

## Class Attendance

Students are expected to attend class, and the responsibility for attending class rests with the student.

Students are expected to learn and observe the attendance rules established by each instructor for each course. Absences affect the quality of work, and those who attend regularly perform much better than those who do not.

Work missed can seldom be made up fully, for make-up work seldom equals the original experience of being present in the class. Instructors will help students to make up work whenever the student has to be absent for good cause; this matter lies between the instructor and student. Whenever possible, a student should notify the instructor in advance of circumstances which prevent class attendance. 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 Registrar in case a student's attendance is such that her/his membership in a class is in doubt. Failure to make such reports often puts the university in an awkward 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 i 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 o the Dean of the Graduate College.

Work lost because of absence due to illiness, or other extenuating circumstances, may be made up, but arrangements for making up worl 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 Incomplete (I) has been authorized by the instructor. The $I$ is restricted to students doing satisfac tory work in the class who, because of extenuating circumstances, are unable to complete the work of the course. The $I$ is limited to assignea work during the final sixth of the term. If a course is reported a Incomplete, a student is not prevented from registering for another course for which the unfinished course is a prerequisite. Work reported as Incomplete must be completed within six months from the time at which the report was made. If the work reported as Incomplete 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 Incomplete 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. The extension, if approved, would be for another six months period unless designated otherwise by the department head.

Some courses continue beyond the normal ending date of the semester or session. In such cases the initial grade reported will be an $R C$ which means Research or Course Continued. Once the extended instructional period is finished the RC grade will be replaced with the A-F grade assigned by the instructor.

## Regression

Regression occurs when a student enrolls in a course which has content fundamental to another course the student has previoush' completed successfully. When such regression occurs, the regressiv course will be available on an ungraded (credit/no credit) basis onls Credit may be earned, but the hours earned will increase the student? minimum degree hour requirement by an equal amount.

The decision as to whether a course is regressive is made by the department offering the courses. Regression does not occur when the more advanced course was failed. Courses to which this policy applie will be identified in the Schedule of Classes.

## Duplication

When two courses have content which is highly similar, e.g., one fort general education and one for major/minor requirements, the depart ment offering the course(s) will determine if degree credit can be earned in its course(s). If the department will not allow degree credit in both courses, the credit in the course taken second will increase the student minimum degree hour requirement by an equal amount. Such second courses may be completed only on an ungraded (credit/no credit) basis.

## Marks and Grade Points

The marks A, B, C, D, F (Failed), and I (Incomplete) 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-sixth of the term are indicated on the student's record by W (Withdrawn). For courses dropped during the final one-half of the term (the specific date of the last day to drop a course without an $F$ is listed in the Schedule of

Classes for each session), $F$ (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 proporBonately 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; $\mathrm{A}-, 3.67 ; \mathrm{B}+3.33 ; \mathrm{B}, 3$ grade points; $\mathrm{B}-, 2.67 ; \mathrm{C}+$, 2.33; C, 2 grade points; C-, 1.67; 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 students enrolled as undergraduates. If a student repeats successfully a course he or she 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 or she has successfully completed, the grade received the last time the student 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 as undergraduates 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 student 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

Warning: This action is taken by the Office of the Registrar and no entry of this is made on the student's permanent record. A student who is from one to five points deficient of the number necessary for a 2.00 index at UN will be warned.
Probation: Any student who is deficient from six to thirteen grade points for a 2.00 cumulative index at UNI will be placed on probation. No entry of this is made on the student's permanent record. A student who has been placed on probation may improve his or her record and be removed from probation after reaching a 2.00 cumulative index at UN or the student may lower his or her record and be subject to suspension.
Suspension: A student who at the end of any semester or summer session is more than thirteen grade points deficient of a 2.00 grade index at UNI or in combination with his or her transfer grade index will be suspended. An entry of this action is made on the student's permanent record.

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 they may be suspended.
Readmission After Suspension: A student who has been suspended may be readmitted only after applying for readmission in writing and receiving favorable action on the application from the Committee on Admission and Retention. Applications for readmission may be secured from and filed with the secretary of the committee in the Office of the Registrar. Academic suspension is for a minimum period of one academic year. Only the most extenuating circumstances would warrant consideration for readmission before one academic year has elapsed.

Upon readmission students must earn a minimum of a 2.00 grade point average each term they are enrolled until their cumulative grade point average is 2.00 or higher. Failure to earn a 2.00 or higher grade point average in any semester following readmission will cause the student to be suspended again. Academic suspension for a second time is considered permanent. Only the most extenuating circumstances would warrant consideration for readmission a second time.

## 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 60 semester hours of credit at this university. Only credit earned in residence at this university is considered in making honor awards, except for students graduating with the Bachelor of Liberal Studies degree in which case both residence and nonresidence credit taken at this university is considered.
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 identified 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 or she 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 $\mathrm{C}-$ or higher is required in a course to receive credit on the "CreditNo 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. No course taken in the "CreditNo Credit" option may be applied toward meeting a General Education requirement.
6. Except for Field Experience: Interpersonal Interaction Patterns (20:017), Field Experience: Teacher as Change Agent (20:018), and for Student Teaching (28:132 through 28:140), ungraded credit may not be used to meet 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 CreditNo 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 undergraduate credit is designed for special projects such as a paper, experiment, work of art, or portfolio assessment of prior learning. The experience upon which the project is based may have been completed at any previous time; however, the student must be registered for credit at this University during the semester "open credit" is requested and open credit will be recorded only after the student has satisfactorily completed 12 hours of credit at this institution.

A project may be submitted any time during the semester up to the last date to add a second half semester course for credit. There is no guarantee of credit prior to or upon submittal of the project. The project is submitted to an ad hoc faculty committee of three faculty members recommended by the student and approved by the head of the academic department or discipline in which the project falls; two faculty members are chosen from the academic area or discipline of the project and one from any area. The student may not submit a project evaluated by one committee to a second committee for reevaluation. The student may resubmit a project to the original committee at the committee's discretion or with its encouragement.

The number of open credit hours assigned to a project will reflect the academic evaluation of the project; credit will be awarded for work judged to be of at least C level quality. No letter grades are given. The range of credit is from 0 to 6 hours per project. A student may apply a maximum of 18 hours of open credit toward graduation requirements. Open credit is normally elective but upon the recommendation of the ad hoc committee it may be approved for requirements in General Education with the approval of the Office of Academic Affairs or for major credit with departmental approval.

Students should contact the Special Programs Office or the appropriate departmental office for advice in submitting projects. Application forms may be secured from the Office of the Registrar.

## Cooperative Education

Cooperative Education is an educational program which helps students integrate academic study with work experience. Students in the Co-op Program alternate periods of classroom study with work in business, industry, or a government agency. All Co-op placements are credit bearing.

Participation in the program is optional on the part of the students and selective on the part of the university. Students may qualify for enrollment when all of the following conditions are met:
A. Student has sophomore, junior, or senior status.
B. Student has grade point average of 2.5 based upon at least one completed semester of course work at UNI. Some departments may require a higher minimum grade point average than 2.5 .
C. A UNI faculty member approves all arrangements, including projects to be completed, and agrees to supervise and evaluate the students' learning experience.
D. Approval is obtained from the academic department head gran ing credit.
E. Co-op staff can develop a field placement opportunity and arran for employer's supervision.
Placements can occur during the fall, spring, or summer term Students are encouraged to contact the Co-op Office during the freshman year to insure proper class scheduling.

## Correspondence Study/Extension Credit

Correspondence study and extension classes comprise the media 1 which extension credit may be earned. Not more than 32 semester hol of the work required for the bachelor's degree may be met by non resident credit.
Correspondence Study - Amy student who fully meets admissi standards will be permitted to enroll for Correspondence Study and $m$ be permitted to continue such study so long as a minimum academ average of 2.00 is maintained by the student. A student may not take $b$ correspondence any course which was previously taken by the stude and failed.

As correspondence study courses do not follow the regular semesti time schedule, a student may enroll at any time of the year. Howevers student must have special permission to enroll in correspondence wo while currently enrolled for regular courses on campus if it causes an overload of hours.

The fee for Correspondence Study is $\$ 42$ per semester hour and $\$ 1$ enrollment fee for both undergraduate and graduate students.
Extension Class Study - Conditions for admission to extension clas study are the same as for admission to residence work. There is no distinction between on-campus and off-campus extension credit in meeting university degree requirements. Two-thirds of the credit re quired on a graduate degree program must be earned in classes taugh by UNI staff. The fee for extension credit is $\$ 72$ per semester hour fol both undergraduate and graduate students.

All fees are subject to change by the lowa State Board of Regents,

## Credit by Examination

Credit in a course may be earned by examination. Credit is earned only if a grade of $A$ or $B$ is received in the examination. A grade of $C$ wi release a student from a course requirement, but gives no credit. A grad below C gives neither credit nor release, and is recorded as a failur 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 prerequisity 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 is responsible for 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.
Note: For limitations in the total amount of credit eamed by examination see page 51.

## Independent Study

Undergraduate 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 this 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 page 10 for details.

## Auditing Classes

A student may register for classes on an audit (non-credit) basis at the University of Northern Iowa if a space is available in the class. If the addition of the course to be visited (audited) makes the student's total course load hours more than is permitted according to the student's grade point average, the student also must have written approval from the Office of Academic Affairs for an overload of course work.

There is no reduction of fees for auditing (visiting) a course.
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, take part in class discussions, or complete other work. Audits will not be recorded on the permanent record except by a student request approved by the instructor showing that the student regularly attended the course.

## Writing Competency Examination

All entering and transfer students who are candidates for baccalaureate degrees are required to demonstrate competency in writing by passing the Writing Competency Examination. The examination is designed to complement and assist the efforts of the university faculty to ensure that graduates of the university are competent writers.

This examination is given twice each semester. Students register for the examination ( $62: 00 \mathrm{X} \mathrm{Sec}$.80 or 90 ) during regular class registration periods at the beginning of each semester. The examination may also be given at other times as deemed appropriate by the university. Students should register to take the examination by the end of the sophomore year. Transfer students should register to take the examination their first semester at the university.

Examinations are scored on a pass/no credit basis by trained readers drawn from the Department of English Language and Literature faculty. Students who pass the examination are so informed with their semester grades. Students who do not pass the examination are sent a letter explaining the problems in their writing. They are also advised how to
work on these problems in order to pass the examination. Students may repeat the examination after completing appropriate work to improve their writing.

Students with little writing experience in high school and those with known writing problems are urged to enroll in 62:001 Writing: Fundamentals, a course designed to help students prepare for the examination. This course carries three (3) hours of credit. Passing the Writing Competency Examination earns no credit hours, but fulfills a graduation requirement.

## College Level Examination Program (CLEP)

The University of Northern Iowa is a participating university in the College Level Examination Program (CLEP). Two types of CLEP examinations are given: General Examinations, which may be applied to general education requirements, and Subject Examinations. CLEP examinations (both General and Subject) are usually administered once a month throughout the year. Students who plan to attend UNI and who wish further information may write to the Office of Admissions or to Academic Advising Services. (Information is also available in most high school counselors' offices.) Enrolled students interested in earning credit through CLEP should contact Academic Advising Services for information and dates of the examinations.

Five General Examinations are given: English Composition with Essay, Humanities, Mathematics, Natural Sciences, and Social Sci-ences-History. The test scores are reported with the percentile ranks based on scores achieved by a representative sample of students at the end of their sophomore year in American colleges and universities. Credit earned by CLEP through the General Examinations (a score of 70 percentile or higher) may be applied to general education requirements at UNI. CLEP tests are usually taken at the time of first registration, and must be completed before registering for general education courses in subject areas to which the tests apply.

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 50 th 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 or Academic Advising Services. Students should expect a delay of at least four weeks between the time of testing and receipt of scores.

For limitations on the total amount of credit earned by examination, including CLEP, which may be applied toward graduation degree requirements, see page 51.

Credit established by CLEP at an institution participating in the lowa Public College/University CLEP Agreement will be accepted in transfer at full value when terms of the agreement are met.

Students who have established credit by CLEP at a college or university other than an Iowa Regents university or an Iowa area community college participating in the Iowa CLEP agreement, may submit official reports of their scores for consideration. Students whose scores meet UNI standards for awarding credit on the basis of CLEP will receive appropriate credit.

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

A fee of $\$ 30$ is charged for each examination. Fee payment, registration procedures, and test date information are available by contacting Academic Advising Services, Baker 161, UNI (telephone: 319-273-6023).

## 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. UN grants college credits in art, biology, chemistry, computer science, 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 Academic Advising Office, UN. (For limitations in the total amount of credit earned by examination, see page 51.)

## Graduate Credit for Undergraduate Students

Undergraduate seniors who are in their final semester and within eight semester hours of graduation, or in their final summer session and within four hours of graduation, may register for graduate credit with the approval of the Dean of the Graduate College. Their combined total of course credits, both undergraduate and graduate, may not exceed fifteen hours in a semester or eight hours in a summer session, and they must be enrolled in sufficient undergraduate work to complete the bachelor's degree in the semester or summer session in which application is made.

Graduate work completed on the early admission basis will be counted as graduate credit only if the student actually earns the bachelor's degree at the end of the semester or summer session in which the work is taken. Such credits may or may not be counted toward graduate degree programs at the discretion of the graduate department.

## Workshops and Study Tours

From time to time, and especially during the summer session, 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 page 8 for details.)

## Student Requests for Exceptions to Academic Policy

Students whowish to request that an individual exception be made to a stated academic policy should complete a Student Request Form in consultation with their advisers. Forms are available in all departmental offices and from the Office of the Registrar. The adviser's signature is required for all requests. Other approvals may include the instructor, department head, dean, and Assistant Vice President for Academic Affairs, depending on the nature of the request.

## Academic Ethics Policies

Students at the University of Northern Iowa are required to observe the commonly accepted standards of academic honesty and integrity. Except in those instances in which group work is specifically authorized by the instructor of the class, no work which is not solely the student's is to be submitted to a professor in the form of an examination paper, a term paper, class project, research project, or thesis project.

Cheating of any kind on examinations and/or plagiarism of papers or projects is strictly prohibited. Also unacceptable are the purchase of papers from commercial sources, using a single paper to meet the requirement of more than one class (except in instances authorized and considered appropriate by the professors of the two classes), and submission of a term paper or project completed by any individual other than the student submitting the work. Students are cautioned that plagiarism is defined as the process of stealing or passing off as one's own the ideas or words of another, or presenting as one's own an idea or product which is derived from an existing source.

It is not acceptable for the work or ideas of another scholar to be presented as a student's own or to be utilized in a paper or project without proper citation. To avoid any appearance of plagiarism or accidental plagiarism, it is important that all students become fully cognizant of the citation procedures utilized in their own discipline and in the classes which they take. The plea of ignorance regarding citation procedures or of carelessness in citation is not a compelling defense against allegations of plagiarism. A college student, by the fact that he or she holds that status, is expected to understand the distinction between proper scholarly use of others' work and plagiarism.

A student who is found to have improperly used others' work must expect to be penalized for such action - even if the argument is made that the action was taken with innocent intention - and the student's instructor will normally judge such work "unacceptable." But it should be noted that the assignment of a low or failing grade for unacceptable work is not in itself a disciplinary action - even if the assignment of such a grade results in the student's receiving a lower grade in the course, including " F ", than he or she would otherwise achieve. Such a response by an instructor is part of the normal grading process; if a student feels that he or she has grounds to protest a grade received through this process, the student has access to the academic grievance procedure which the university has developed to deal with all student academic grievances.

On the other hand, cheating and plagiarism are issues which can affect a student's status at the university in more serious ways. As an educational institution, the university maintains standards of ethical academic behavior, and recognizes its responsibility to enforce these standards. Therefore, the following procedures of academic discipline prevail at the University of Northern Iowa.

If a student is determined by an instructor to have committed a violation of academic ethics, the instructor may take additional disciplinary action including, but not limited to, grade reduction for the course in which the infraction occurs, even if the reduction is over and above the normal consequences resulting from the grade merited by the unacceptable work.

In cases where such disciplinary action is taken, the instructor is obliged to report the action in writing, to the student, to the instructor's department head, (and, if the student is from a different department, to the head of the student's department), and to the Office of the Provost and Vice President for Academic Affairs. The Provost and Vice President for Academic Affairs will notify the student in writing that such action has been taken, and will maintain a file for each student so disciplined. (This file is confidential and is independent of the student's normal university records.)

A student wishing to appeal or dispute the disciplinary action taken may seek redress through the university academic grievance structure. In the case of a successful grievance, the evidence of the disciplinary action taken by the instructor will be expunged from the student's file by the Provost and Vice President for Academic Affairs.

In cases of particularly flagrant violations of academic ethics relating to cheating or plagiarism, the instructor may feel obliged to recommend suspension from the University of Northern Iowa for a period ranging from the term in which the infraction occurs (with a loss of all credit earned during that term) to permanent suspension from the university.

Such recommendations are sent in writing to the department head and the Provost and Vice President for Academic Affairs, the latter of whom informs the student in writing that the recommendation has been made. In such cases, the academic appeals procedure is automatically invoked by the Provost and Vice President for Academic Affairs. Until the mandatory academic appeal in such cases has been completed, the recommended suspension is not in effect. In cases of a successful appeal to such action, the materials relating to the successfully grieved disciplinary action will be expunged from all university records.

Finally, the Provost and Vice President for Academic Affairs will regularly monitor all files relating to disciplinary action taken against specific students. If the monitoring reveals a history of disciplinary actions taken against a particular student (excluding any actions which have been successfully grieved) such that there are three or more instances of such action subsequent to any academic grievances generated by such actions, the Provost and Vice President for Academic Affairs will, as a matter of course, institute proceedings for permanent suspension of that student. The procedures demand that the Provost and Vice President for Academic Affairs notify the student in writing that suspension procedures have been invoked, and there is an automatic appeal to the university academic grievance structure in all such cases.

All parts of the academic grievance structure (including those stipulated in the immediately preceding paragraph) apply in such cases, except that the Provost and Vice President for Academic Affairs, as the disciplinary officer, functions in the role of the instructor in an academic grievance relating to a specific class.

## Student Conduct

The University of Northern Iowa expects all students to observe university regulations and the city, state and federal laws, and to respect fully the rights of others. The Student Rights and Responsibilities Statement contains more specific information concerning student conduct and 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 complies with the laws of the United States and the State of Iowa.

University policies relative to student records are contained in the Student Rights and Responsibilities Statement. The Family Educational Rights and Privacy Act and the regulations required by this act may be reviewed in the Office of the Registrar, Room 243, Gilchrist Hall.

## Student Persistence

Iowa Regents universities have conducted studies, at five-year intervals, of student persistence/attrition. A summary of the findings of the most recent study may be secured from the Office of the Registrar.

## Academic Grievances

Equitable due process in academic matters is provided in grievance procedures for both undergraduate and graduate students. These procedures are published annually in the Northern Iowan in the Student Rights and Responsibilities Statement. Copies are also available in all departmental offices and the Office of the Vice President and Provost.

## Nondiscrimination Policy of the University of Northern Iowa

The University of Northern Iowa has adopted a policy of nondiscrimination and affirmative action in accordance with public policy and law, including executive orders \#11246 and \#11375, revised order \#4, Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, Age Discrimination Acts of 1967 and 1975, Vietnam Era Veterans' Readjustment Act of 1974, and other relevant legislation and state and federal executive orders.

The university is committed to a policy of equal opportunity without regard to race, religion, national origin, age, sex, or handicaps, and to a policy of affirmative action for protected classes.

This policy must be implemented throughout the university and is the responsibility of all employees of the university, including both supervisory and nonsupervisory personnel. It involves all students and student activities.

The University of Northern lowa upholds its long-standing commitment to providing equal accessibility to programs and facilities for all segments of society - this includes all protected classes, including the handicapped. In the last several years the university has reviewed its entire program for its accessibility to qualified persons and is prepared to make necessary adjustments to assure equal accessibility for the handicapped to all university programs.

In an endeavor to achieve these goals, university buildings and grounds have been modified to be accessible to people with physical handicaps. Further requests for reasonable modifications which are requested to accommodate the needs of any individual student may be made to the Affirmative Action Compliance Officer, Room 126, Gilchrist Hall (Ext. 2846). It is the intention and desire of the university to make every effort to provide such modification on a timely basis.


## Major Requirements

## Accounting

(School of Business)


#### Abstract

G. Halverson, Head. R. Abraham, L. Andreessen, D. Davis, J. MacArthur, L. Nicholas, J. Norem, M. Rod, G. Sandell. Note: To graduate with a major in accounting from the School of Business a student must complete 92:053, 92:054, 12:030, 12:031, 15:020, and 15:070 with at least a C - in each course whether taken at UNI or an institution from which transfer credit for these courses is accepted; must earn a 2.2 cumulative grade point average at UNI; and must earn an overall 2.2 grade point average in $12: \mathrm{xcx}, 13: \mathrm{xax}, 15: \mathrm{xox}$, 18:8xx, and 92:00x courses taken at UNI. Accounting courses in which a C - or better grade has been earned may not be retaken for credit without the consent of the department head.


## Accounting Major

Required business core . . . . . . . . . . . . . . . . . . . . . . . 39-43 hours
Management: 15:020; 15:070; 15:080; 15:100; (or 15:101, 15:102, and 15:104); 15:151; 15:153; 15:154; 15:175.
Accounting: 12:030; 12:031.
Marketing: 13:152.
Economics: 92:053; 92:054.
Accounting: $12: 129 ; 12: 130 . \ldots . . . . . . . . . . . . . . . . .$. . . . 6 hours
Electives: at least 12 hours from other accounting courses

12 hours 57-61 hours
Students who wish to qualify to sit for the CPA Examination in lowa must include 12:134 in their accounting electives.

## Business Minor - Accounting

Accounting: 12:030 . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Marketing: 13:152 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Management: 15:153. . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Electives: at least 9 hours from accounting area 9 hours
18 hours

## Art

(College of Humanities and Fine Arts)
W. Leur, Head. C. Adelman, H. Anderson, S. Bigler, M. Brum, F. Burton, B. Cassino, R. Colburn, F. Echeverria, D. Finegan, K. Gogel D. Gregory, S. Haupt, J. Page, D. Powell, A. Schickman, V. Siddens, B. Stahlecker, C. Streed.

Note: No grade of less than C- shall satisfy any art major or minor degree requirement whether taken at UNI or transferred from another institution.

## Foundations Program

A program of visual inquiry and discovery providing the most essential beginning experience requisite to functioning as a creative artist is required in all art major and art minor programs for a total of 18 semester hours.
Required: Art: 60:001; 60:003; 60:026; 60:027; 60:040;
60:041
18 hours

## Bachelor of Fine Arts Degree Program

## Art Major

Programs of study: ceramics, graphic design, drawing, metalwork, painting, photography, printmaking, and sculpture.
Required: Foundations Program...................... 18 hours
Required studio distribution 18 hours

- at least three courses from each of the following groups:

Group 1-60:025; 60:032; 60:033 or 60:035; 60:080
Group $2-60: 037 ; 60: 050 ; 60: 055$ or 60:057; 60:074
Required drawing courses. . .......................... . 6 hours
History of art electives .............................. 9 hours
Studio electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 24 hours
75 hours
Note: Each art major is required to participate in the departmental jury system. Details may be obtained from the department office.

A senior exhibition demonstrating competency is required of each student enrolled in this degree program. Details may be obtained from the department office.
B.FA. majors who seek certification to teach must complete, additionally, 60:091, 60:092, 60:193, 60:194, the Common Professional Sequence, 01:070 (Human Relations: Awareness and Application) and a course in either American government or history.

## Bachelor of Arts Degree Programs

## Art Major

Required: Foundations Program. ..................... 18 hours
Required studio distribution 6 hours

- One course from each of the following groups: Group 1-60:025; 60:032; 60:033 or 60:035; 60:080
Group 2 - $60: 037 ; 60: 050 ; 60: 055$ or 60:057; 60:074
Required drawing courses........................... 6 hours
Electives: history of art . . . . . . . . . . . . . . . . . . . . . . . 6 hours
Art electives 9 hours
45 hours
It is recommended that students elect an emphasis in either studio or art history.
Studio emphasis: 9 hours in any one of the following areas - ceramics, graphic design, drawing, metalwork, painting, photography, printmaking, or sculpture.
Art history emphasis: 15 hours of 100 -level courses in art history.
Each major is required to participate in the departmental jury system. Details may be obtained from the department office.


## Art Major - Teaching

Required: Foundations Program. ..................... . 18 hours
Required studio distribution . . . . . . . . . . . . . . . . . . . . 12 hours

- Two courses from each of the following groups: Group 1-60:025; 60:032; 60:033 or 60:035; 60:080 Group 2-60:037; 60:050; 60:055 or 60:057; 60:074
Required drawing courses........................ 6 hours
Required: 60:091; 60:092; 60:193; 60:194 ............ 9 hours
Electives: history of art .............................. 6 hours
51 hours


## It is recommended that students elect an emphasis in either studio or art history.

Studio emphasis: 9 hours in any one of the following areas - ceramics, graphic design, drawing, metalwork, painting, photography, printmaking, or sculpture.
Art history emphasis: $\mathbf{1 5}$ hours of 100 -level courses in art history.
Each art major is required to participate in the departmental jury system. Details may be obtained from the departmental office.

## Art Minor

Required: Foundations Program. . . . . . . . . . . . . . . . . . . 18 hours
Art elective. . ........................................... 3 hours
21 hours
Note: For all studio courses in the Department of Art programs the ratio of student work hours to credit hours is $3: 1$. Therefore, additional work is required outside the regular class meeting times.

## Art Minor - Teaching

Required: Foundations Program. . . . . . . . . . . . . . . . . . 18 hours
Required studio electives. . . . . . . . . . . . . . . . . . . . . . . 3 hours
Required art education: either 60:091 and 60:092
(elementary) or $60: 193$ and $60: 194$ (secondary) ... . $4-5$ hours
25-26 hours

## Biology

(College of Natural Sciences)
D. Smith, Head. V. Berg, B. Bergquist, B. Clausen, V. Dowell, J. Downey, L. Eilers, R. Gass, A. Haman, C. Lee, D. McCalley, A. Orr, W. Picklum,
D. Riggs, R. Saigo, O. Schwartz, R. Seager, R. Simpson, E. TePaske, P. Whitson, N. Wilson.

Major programs are offered by the Department of Biology in two baccalaureate areas: the Bachelor of Arts and the Bachelor of Science. The Bachelor of Science degree is recommended for most students preparing for graduate study in biology. The Bachelor of Arts degree provides a choice among several majors depending upon student interest and/or career plans.
Note: Students should submit their declaration of a biology major early in their college programs. This will permit them to plan their major courses with a department adviser to avoid future conflicts. Transfer students with previous courses in biology, zoology, or botany must have transfer courses evaluated to avoid duplication and possible loss of credit. Decisions regarding UNI major courses and transfer credits should be approved by the department head or adviser.

## Bachelor of Science Degree Program

- 130 semester hours


## Major in Biology

The Bachelor of Science Major in Biology is designed to prepare students for careers in areas which require a higher degree of concentration in subject matter and cognate areas, particularly advanced-level courses. This degree is especially appropriate for students planning to go to graduate school.
Required:
Biology: 84:051; 84:052; 84:128; 84:140; 84:157; 84:168; 84:190

23-24 hours
Cognate:
Chemistry: 86:048 or 86:070; 86:120; 86:121; 86:123 12-13 hours
Mathematics: 80:061 ..... 4 hours
Physics: 88:056 or 88:131 and 88:061 ..... 3 hours
Electives in Biology" ( 100 -level or above) 12-13 hours
Minimum Total 59-61 hours
*A minimum of 36 hours is required in Biology.
this program include: 86:044; 80:060; 88:054 or 88:130 with 88:060 .

## Bachelor of Arts Degree Programs

## Biology Major: Plan X

This is a general major with the opportunity to develop specific emphases through choice of electives. Students should work with advisers to design programs to meet individual educational objectives. Required:

Biology: 84:051; 84:052; 84:128; 84:140; 84:168. .... 18 hours
Cognate
20-24 hours
Chemistry: Either 86:044 and 86:048 or 86:070; either 86:050 and 86:132 or 86:120, 86:121 and 86:123.
Earth Science: 87:031 and 87:035 or
Physics: 88:054 and 88:056.
Electives in biology ( 100 level or above). . . . . . . . . . . . . 13 -17 hours
55 hours
Note: A working knowledge of algebra and trigonometry is necessary.

## Biology Major: Plan Y

This major offers basic preparation to students for medical, osteopathic, dental, veterinary, optometry, podiatry and other healthrelated programs. In addition it prepares students for graduate study in the biomedical sciences such as pharmacology, toxicology, pathology, physiology, cellular biology and related areas. Students should seek advice and information early in their programs so that individual goals and specific additional requirements of some graduate programs can be considered in curriculum planning.
Required:
Biology: 84:051; 84:052 . ......................... . 8 hours
Cognate . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $25-29$ hours
Chemistry: either 86:044 and 86:048 or 86:070; 86:120; 86:121; 86:123.
Physics: 88:054; 88:056.
Mathematics: 80:045 or 80:048 or 80:060 or equivalent.
Electives in biology to be selected from the following in
consultation with adviser: 84:106; 84:108; 84:112;
84:114; 84:117; 84:128; 84:132; 84:138; 84:140;
84:151.
18-22 hours
55 hours

## Biology Major - Teaching

The biology teaching major provides a broad education in the biological sciences and, with student teaching and other courses designed specifically for those planning to teach, prepares one to teach biology, life science and similar courses at the secondary level. Students planning a teaching career should contact their academic advisers early in their programs. This program also serves as an excellent base for graduate level education in the biological sciences or in science education.
Required:
Biology: 84:051; 84:052; 84:114 or 84:138; 84:122; 84:128 or 84:151; 84:140; 84:142; 84:168; 84:193
30-31 hours
Cognate . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16-17 hours
Chemistry: 86:048 or 86:070; either 86:050 and $86: 132$ or $86: 120,86: 121$ and $86: 123$.
Earth Science: 87:035 or
Physics: 88:056.
Electives in biology from among: 84:103; 84:112; 84:120;
84:160; 84:166; 84:170
7-9 hours 55 hours

## Biotechnology Major

This major is designed to provide educational training for employment with industries or governmental agencies involved in food processing, pharmaceutical manufacturing, environmental monitoring or other biologically related activities.
Required biology: 84:051; 84:052; 84:128; 84:132;
84:151; 84:157 ................................... . . 22 hours
Required cognate courses . . . . . . . . . . . . . . . . . . . . . . 13-20 hours
Chemistry: 86:044 and 86:048, or 86:070; 86:132; 86:050 or 86:120; 86:121; 86:123.
Electives from courses below
13-20 hours
Computer Science: 81:070.
Biology: 84:114; 84:140; 84:168; 84:170.
Physics: 88:054; 88:056.

## Natural History Interpretation Major

This program prepares students in field natural history for employment with park systems, nature centers and museums. The interpretive naturalist is a communicator about nature, the environment and ecological management, leading field trips, developing indoor and outdoor programs and managing natural areas.
Required biology: 84:051; 84:052; 84:103; 84:112 or
84:170; 84:160; 84:166; 84:168; 84:176 or 84:177 or
equivalent; 84:180; 84:182
34 hours
Required cognate courses . . . . . . . . . . . . . . . . . . . . . . 15-18 hours
Science and Science Education: 82:132.
Chemistry: 86:044 and 86:048 or 86:070.
Earth Science: 87:031; 87:035.
Electives at 100 level in biology or earth science ..... 3-6 hours
55 hours

## Biology Minor

Required biology: 84:051; 84:052 . . . . . . . . . . . . . . . . . 8 hours
Electives in biology at 100 level. 15 hours
23 hours

## Biology Minor - Teaching

Required: ......................................... . . 14-15 hours
Biology: 84:051; 84:052; 84:193.
Chemistry: 86:044 or 86:070.
(Home economics majors may substitute credit in 86:061 for this requirement).
Electives in biology at 100 level . . . . . . . . . . . . . . . . . 10-11 hours 25 hours

## Chemistry

(College of Natural Sciences)
L. McGrew, Head. J. Chang, H. Lyon, J. Macmillan, E. Richter, P. Rider, N. Vollendorf, W. Wehner, R. Wiley, C. Woo.

Major programs are offered by the Department of Chemistry in two baccalaureate areas: the Bachelor of Science and the Bachelor of Arts. The chemistry program leading to the Bachelor of Science Degree is accredited by the American Chemical Society. This program is recommended for students who wish to prepare for careers as professional chemists. It also provides the most complete preparation for postgraduate study in the field of chemistry. The Bachelor of Arts Degree Chemistry Major provides a wider choice of electives than the B.S. curriculum. With appropriate choice of electives the B.A. Chemistry Major meets the needs of pre-medical students and students preparing for additional study in related areas such as biochemistry, industrial hygiene, pharmacology and medicinal chemistry, clinical chemistry, and toxicology. It is also suitable for students who wish to combine a chemistry major with a major in another discipline. The BA. degree also includes a program for preparation of chemistry teachers and a program for students interested in the sales and marketing aspects of the chemical industry.

Students considering a chemistry major should complete two semesters of general chemistry, 86:044 and 86:048, in the freshman year. Wellprepared students may be permitted to take 86:070, an accelerated course in general chemistry, during their first semester. It is strongly recommended that chemistry majors complete requirements in mathematics and physics within the first two years.

## Bachelor of Science Degree Program

- 130 semester hours


## Chemistry Major

Required:
Chemistry: 86:044 and 86:048 or 86:070; 86:120; 86:121; 86:123; 86:125; 86:132; 86:135; 86:140; 86:141; 86:143 (2 hrs.); 86:145

34-37 hours
Mathematics: $80: 060 ; 80: 061 \ldots \ldots . .$. . . . . . . . . 8 hours
Physics: 88:060; 88:061; 88:130; 88:131 .......... . 10 hours
Computer Science: 81:070 or 81:081 ............. 3 hours
Additional advanced study, to include at least 1 hour in 86:180 Undergraduate Research and at least 3 hours in a chemistry lecture course carrying a physical chemistry prerequisite 8-11 hours 66 hours

## Notes:

The courses 88:060 and 88:061 will be waived for students who complete 88:054 General Physics I and 88:056 General Physics II before taking 88:130.

The additional advanced study should be planned with the help of the major adviser and should be consistent with the guidelines of the American Chemical Society for certification of chemistry majors. Appropriate advanced courses in other sciences can be included.

Undergraduate research should be taken after completion of physical chemistry, normally during the senior year. Successful completion of the research experience requires writing a final research report.

Students on this program are strongly urged to complete two semesters of a foreign language such as German or Russian.

## Bachelor of Arts Degree Programs

| Chemistry Major |  |
| :---: | :---: |
| Required: |  |
| Chemistry: 86:044 and 86:048 or 86:070; 86:120;86:121; 86:123; $86: 132 ; 86: 134$ or 86:135; |  |
| 86:140; 86:141; 86:143 . . . . . . . . . . . . . . . . . 29-32 hours |  |
| Physics: 88:054 and 88:056 or 88:130 and 88:131 . . 8 hours |  |
| Mathematics: 80:060 and 80:061 .................. 8 hours |  |
| Electives: chemistry or other sciences | 6-9 hours |
|  | 54 hours |

## Chemistry Major - Teaching

Required:
Chemistry: 86:044 and 86:048 or 86:070; 86:120;
86:121; 86:123; 86:132; 86:140 or 86:142 . .... . 20-23 hours
Physics: 88:054 and 88:056, or $88: 130$ and 88:131. . 8 hours
Required methods:
Science and Science Education: 82:190 .......... 2 hours
Chemistry: 86:193 ................................ . . 2 hours
Electives: chemistry beyond 86:048 or 86:070 . . . . . . . 7-10 hours
42 hours
Note: The required mathematics and physics courses should be completed by the end of the sophomore year.

## Chemistry - Marketing Major

This is an interdisciplinary major offered by the Department of Chemistry and the School of Business, and is under the jurisdiction of the Department of Chemistry. The Department of Chemistry is responsible for advising students enrolled in the major.

## Required:

Chemistry: 86:044 and 86:048 or 86:070; 86:120;
86:121; 86:123; 86:132; 86:142; 86:134 or
86:150
24-27 hours
Accounting: 12:030; $12: 031$...................... . . 6 hours
Marketing: 13:140; 13:151; 13:152; 13:175........ 12 hours
Management: 15:020; 15:070; 15:153 ............. . 9 hours 51-54 hours
Note: The mathematics prerequisite for one or more of the above courses is $80: 046$.

## Chemistry Minor

Required:
Chemistry: 86:044 and 86:048, or 86:070 ........ . 5-8 hours
Electives in chemistry beyond 86:048 or 86:070 ... 12-15 hours
20 hours

## Communication and Theatre Arts

(College of Humanities and Fine Arts)
G. Hall, Head. G. Berghammer, M. Bozik, R. Burk, P. Carlin, T. Carlisle, C. Colburn, L. Commeret, R. Conklin, J. Edelnant, G. Glenn, J. Coodlick, P. Habermann, K. Hardeman, B. Henderson, M. Jensen P. Jones, D. Kruckeberg, R. Mild, C. Nelson, N. Phillips, B. Rens, M. Renz, R. Rose, R. Rutledge, P. Sannerud, C. Scholz, J. Skaine, M. Sorensen, H. Sueet, R. West.

Note: Students must achieve a minimum grade of $C(2.0)$ in all courses to be applied toward departmental majors or minors.

## Communication and Theatre Arts Major

Required:
Courses in communication and theatre arts (excluding 50:020; 50:026; 50:031; 50:034; 50:130; 50:139; 50:193; 50:194, 50:196)

40 hours
In consultation with an adviser, specific major requirements should be designed around the student's career objective or specific area of study. At least twelve (12) hours must be taken from 100 -level communication and theatre arts courses. A maximum of nine (9) hours may be taken from non-departmental courses. The program of study requires the written approval of the student's academic adviser and by a standing committee of three.

A copy of the approved major program will be filed with the department and the Office of the Registrar.

A minor is strongly recommended.

## Communication and Theatre Arts Major Teaching

Required:
Communication and Theatre Arts: 50:025; 50:030; 50:031; 50:034; 50:050; 50:053; 50:103; 50:139 . 24 hours 50:193; 50:194; 50:196 . . . . . . . . . . . . . . . . . . . . . 7 hours 50:114; 50:144 ................................ 6 hours
Two hours (in different areas) from: 50:010; 50:011; 50:015; 50:110; 50:111; 50:115 2 hours
Journalism: 66:032. ................................. 3 hours
Electives: choice of 3-4 hours from 50:021; 50:045; 50:080; 50:082; 50:105; 50:107; 50:112; 50:113; 50:122; 50:128; 50:134; 50:137; 50:140; 50:143; 50:145; 50:151; 50:152; 50:156; 50:157; 50:164; 50:182; 50:191

3-4 hours 45-46 hours
Note: Students who choose this major must also complete a teaching minor.

| Chemistry Minor - Teaching |  |
| :---: | :---: |
| Required: |  |
| Chemistry: 86:044 and 86:048, or 86:070; 86:050 or 86:120 and 86:123; 86:132; 86:142; 86:193 . ... . | 18-23 hours |
| Science and Science Education: 82:190 | 2 hours |
| Electives from: $86: 121 ; 86: 134 ; 86: 144 ; 86: 186$ (Studies in) $\ldots . . . . . . . . . . . . . . .$. |  |
|  | 25 hours |

## Communications/Public Relations Major

The public relations emphasis requires the completion of 58 credit hours as follows:
Required:
Accounting: $12: 030$............................. . 3 hours
Marketing: 13:140; 13:147; 13:152 ............... . 9 hours
Management: 15:153 . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Educational Media: 24:131. . . . . . . . . . . . . . . . . . . . 3 hours
Art: 60:025 or
Industrial Technology: 33:155 . . . . . . . . . . . . . . . . . . 3-4 hours
Joumalism: 66:032; 66:040 ...................... . 6 hours
Communication and Theatre Arts: 50:077; 50:138; 50:161; 50:163; 50:164; 50:177; 50:178

21 hours
Electives: based on the specific interest of the student and taken from list below* 9-10 hours 58 hours
*Electives:
Marketing: 13:174; 13:175.
Educational Media: 24:138; 24:130; 24:156.
Educational Media: 24:147 or
Industrial Technology: 33:169 or
Art: 60:032.
Communication and Theatre Arts: 50:017 or 50:117; 50:030; 50:103; 50:128; 50:131; $50: 136 ; 50: 137 ; 50: 140 ; 50: 165 ;$ 50:168; 50:179 or 50:197; 50:183; 50:184; 50:185.
Art: $60: 125$. English Language and Literature: 62:070.
Journalism: 66:102; 66:132; 66:140; 66:141; 66:150.
A typing proficiency of 30 words per minute is recommended; 18:047 (Typewriting 1) may be taken to meet this recommendation but will not count toward the major.

A journalism minor is strongly recommended.

## Communications/Radio-TV Major

Required core ................................ 23 hours
Educational Media: 24:131.
Communication and Theatre Arts: 50:018; 50:060; 50:061; 50:062; 50:065; 50:141
Students are to choose one of the following two emphases:
Production/Performance Emphasis:
Required emphasis core:
Communication and Theatre Arts: 50:064; 50:066 or 50:067; 50:137 or 50:165; 50:170.

12 hours
Elective Category 1: 12 hours selected from the
following list.
12 hours
Communication and Theatre Arts: 50:120; 50:153; 50:154; 50:155; 50:172; 50:174
Elective Category 2: 12 hours selected from the
foilowing list.
12 hours
Educational Media: 24:151, 24:155.
Communication and Theatre Arts: 50:031; 50:032;
50:050; 50:055; 50:121; 50:142; 50:068; 50:150;
50:158; 50:171; 50:173; 50:175; 50:197.
Music Techniques: 56:015.
Journalism: 66:040.
Physics: 88:018.
The student may also take courses in Elective Category 1 which were not used to meet that requirement.

Broadcast Journalism Emphasis:
Required emphasis core
30 hours
Communication and Theatre Arts: 50:066; 50:150; 50:155; 50:171; 50:172.
Joumalism: 66:040; 66:132; 66:140.
Political Science: 94:131; 94:132
Electives: 6 hours selected from the following list .... 6 hours Educational Media: 24:147.
Communication and Theatre Arts: 50:031; 50:032; 50:055; 50:118; 50:121; 50:142; 50:158; 50:169; 50:173; 50:174; 50:175.
Journalism: 66:131; 66:141.
Political Science: 94:148; 94:155; 94:173
59 hours

## Communications/Radio-TV - Business Major

This is an interdisciplinary major offered by the Department of Communication and Theatre Arts and the School of Business. It is under the jurisdiction of the Department of Communication and Theatre Arts, which is responsible for advising students enrolled in the major.
Required Radio-TV Core 25 hours
Educational Media: 24:131.
Communication and Theatre Arts: 50:018; 50:060; 50:061; 50:068; 50:120; 50:165; 50:174.
Required Business Core
15 hours
Accounting: 12:030.
Marketing: 13:152.
Management: 15:020; 15:153.
Economics: 92:053.
Required: one of the following two emphases ........ . 12 hours
Manafement Emphasis:
Management: 15:151; 15:163; 15:165; 15:166
Marketing and Sales Emphasis:
Marketing: 13:140; 13:149; 13:171; 13:175
Electives.
7 hours
Seven hours of additional course work from business or radio-TV with at least 3 hours from the following: 50:034; $50: 128 ; 50: 138 ; 50: 139$; 50:163; 50:165; 50:183; 50:184; 50:197.

## Theatre Arts Major

Required:
Communication and Theatre Arts: 50:021; $50: 022$; 50:025; 50:027; 50:045; 50:050; 50:052; 50:053; 50:055*; 50:082; 50:147; 50:148

36 hours
One of the options below for a total of . . .......... $21-22$ hours
57-58 hours
General Option: 21 hours from theatre courses.
Acting Option:
Communication and Theatre Arts: 50:024; 50:080; 50:126; 50:149; 50:181; 50:182; 50:195 (1 hr.).
Physical Education: 42:001 (Beginning Ballet).
Music: 54:049 (2 hrs. - Voice), or 54:049 (1 hr. Voice) and 54:046 ( 1 hr - Piano).
Design and Technology Option:* Communication and
Theatre Arts: 50:051; 50:151 (sets); 50:151
(costume); 50:156; 50:167; 50:195. Nine hours of
electives from: $50: 107 ; 50: 157 ; 50: 166 ; 50: 167$;
50:180; 50:191; 50:195.
*The core of required courses is the same as for the "general" option
except that 50:055 is not required for this option.

## Music Theatre Major

(Bachelor of Fine Arts interdisciplinary degree program - requirements listed under the School of Music, see page 92.)

## Business Communications Minor

This interdisiplinary minor is offered jointly by the College of Humanities and Fine Arts and the School of Business. It is under the jurisdiction of the Departments of English Language and Literature, Information Management, and Communication and Theatre Arts. The minor requires a 12 -hour core plus six (6) hours from one of three emphases.
Required core:
Communication and Theatre Arts: 50:138; 50:163 . . 6 hours
Required: six (6) hours from one of three emphases below

6 hours
18 hours

## Emphases-

Business:
Administrative Management: 18:113; 18:114.
Communications:
Communication and Theatre Arts: 50:183; 50:184; 50:185.
English:
Two of the following -
Journalism: 66:102; 66:141; 66:150.

## Communication and Theatre Arts Minor

Required:
Elective courses* in communication and theatre arts

18 hours
*Excluding 50:020; 50:026; 50:031; 50:034; 50:130; 50:139; 50:193; 50:194 and 50:196.
Specific requirements for this minor should be designed, in consultation with a departmental adviser, for a specific objective or area of study. At least twelve (12) semester hours must be taken from 100-level Communication and Theatre Arts (50:1xx) courses. The minor program requires the written approval of the adviser and a departmental standing committee. A copy of the program will be filed with the department and the Office of the Registrar.

## Communication and Theatre Arts Minor Teaching

Required:
Communication and Theatre Arts: 50:025; 50:030; 50:031; 50:034; 50:144; 50:050; 50:053; 50:114; $50: 193$; 1 hour of $50: 011$ or $50: 111$; 1 hour of $50: 010$ or $50: 110$, or $50: 015$ or $50: 115 \ldots . .$.

## Communication and Theatre Arts - Interpretive Communication Minor

```
Required:
    Communication and Theatre Arts: 50:031 (Must be
        taken prior to the following interpretationcourses.)3 hours
        Fifteen hours from the following courses;
            program to be approved by the interpretation
            faculty: 50:104, 50:106; 50:108; 50:114;
            50:116; 50:118; 50:123; 50:124
                15 hours
        50:034; 50:115; 50:137 .............................. 7 hours
                                25 hours
```


## Communicative Disorders

(College of Humanities and Fine Arts)
J. Smaldino, Head. H. Beykirch, M. Boots, R. Craven, C. Hageman, J. Harrington, C. Highnam, B. Plakke, R. Schwartz.

## Speech-Language Pathology Major

Recommendation for certification is made only upon completion of the graduate program described on page 122.
Required:
Communicative Disorders: 51:010; 51:105; 51:106; 51:111; 51:125; 51:127; 51:135; 51:150; 51:155; $51: 156 ; 51: 157$; $51: 165 ; 51: 195$; plus 3 hours of departmental electives

42 hours
Physics: 88:008. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Measurement and Research: 25:180 .............. . 3 hours
48 hours

## Speech-Language Pathology Major - Teaching

Recommendation for certification is made only upon completion of the graduate program described on page 122.
Required:
Communicative Disorders: 51:010; $51: 105 ; 51: 106$; 51:111; 51:125; 51:127; 51:135; 51:150; 51:155; $51: 156 ; 51: 157$; 51:165; $51: 195$; plus 3 hours of departmental electives

42 hours
Physics: 88:008. . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Measurement and Research: 25:180 3 hours 48 hours
The successful completion of the undergraduate major or its equivalent will be considered adequate preparation for application to graduate education in speech-language pathology. If there are deficiencies in undergraduate preparation, the departmental academic graduate adviser will determine how such deficiencies will be remedied, in consultation with the student.

Students must receive a grade of $C$ or better in required courses offered by the Department of Communicative Disorders in order to receive credit toward the major. Students must repeat any major course (other than 25:180 and 88:008, or equivalent) for which they receive a C- or less. Any one course may be repeated once; a second failure to meet the required $C$ grade will necessitate review and consultation with the student's adviser and the department head.

# Curriculum and Instruction 

(College of Education)
C. May, Head. M. Aldriage, B. Chaney, I. Eland, R. Eller, R. Euchner, R. Hardman, J. Harrns, C. Hatcher, M. Heller, M. Hasier, W. King, R. Kueter, L. Kuse, J. Marchesani, D. Moore, S. Moore, N. Ratekin, M. Shaw, G. Stefanich, C. Thompson, J. Wedman.

## Early Childhood Education Major

This major leads to certification for teaching young children from birth through kindergarten. 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.
12 hours
Educational Psychology: 20:109.
Reading and Language Arts: 23:044.
Elementary and Middle SchoolJunior High: 21:149, 21:154.
Physical Education: 42:045.
Professional semester
17 hours
Elementary and Middle School/Junior High: 21:105; 21:192.
Reading and Language Arts: 23:110.
The courses in the Professional Semester are to be taken simultaneously during the semester immediately preceding Student Teaching. A 2.40 grade index in all course work at the University of Northernlowa and, also, a 2.40 g .p.a. on all course work at this university and elsewhere, or the approval of the head of the Department of Curriculum and Instruction, is required for registration for the Professional Semester.

Within the student's total program (including General Education) at least one course in each of these fields must be included: art, mathematics, music, science, sociology or anthropology, communication and theatre arts, or communicative disorders. A student must take a course in human relations approved by the State Department of Public Instruction (DPI) and a course in American history or American government for certification.

The student must also 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.

A student who wishes to be certified for elementary grades above kindergarten must include the following work in addition to the required work listed above:

A course in Geography;
A course in English Language and Literature;
An elective in Reading and Language Arts;
Elementary and Middle School/Junior High: 21:152;
Mathematics: 80:134;*
Teaching: 4 hours of $28: 134$ or $28: 136$.
*80:030 and 80:131 are prerequisites to this course.
An emphasis in Special Education (Pre-School Handicapped) under this major is offered by the Department of Special Education (see page 101 for program details).

## Elementary Education Major

The student will complete the General Education requirements, the Common Professional Sequence, a Professional Semester, the major requirements, the Emphasis or Area of Concentration requirements as indicated, and electives to complete a minimum of 130 hours. The prescribed program is as follows:
Major requirements.
15-16 hours
Educational Psychology: 20:100.
Special Education: 22:050 or 22:150.
Reading and Language Arts: 23:044; a 2 - or 3 -hour elective.
Educational Media: 24:031 or 24:131.
Physical Education: 42:045.
Professional Semester . . .............................. 17 hours
Elementary and Middle School/Junior High: 21:101.
Reading and Language Arts: 23:110.
Mathematics: 80:134*.
*80:030 and 80:131 are prerequisites to this course.
The courses within the Professional Semester are to be taken simultaneously usually during the semester immediately preceding student teaching by all elementary education majors except those with
an emphasis in reading education or special education. A 2.40 grade index on all work at the University of Northern Iowa and, also, a 2.40 g.p.a. on all course work at this university and elsewhere, or the approval of the head of the Department of Curriculum and Instruction, is required to enter the Professional Semester.
Note: Students who wish to specialize in upper- or lower-level elementary teaching may do so by selecting appropriate sections of those courses designated upper ( U ) and lower ( L ) and by student teaching at the level of specialization.
Courses in Specific Field: The total program (including General Education) must be planned by the student to include some course work in each of these fields: art, English, geography, mathematics, music, science, and communication and theatre arts or communicative disorders.
Addtional Requirements for Certification: Those persons seeking certification to teach in Iowa must take a course in American history or American government. In addition, a Department of Public Instruction (DPI) approved course in human relations must be completed.
Area of Concentration: Students 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 may also choose one of the following emphases in lieu of an area of concentration by indicating the desired area of teaching and taking work appropriate to this emphasis.

1. 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.

Reading and Language Arts: 23:111; 23:112;
23:113; 23:140; 23:193.
Communication and Theatre Arts: 50:130.
Linguistics: 63:130.
2. Reading Education: Completion of this emphasis together with a major in Elementary Education satisfies the state requirements for certificate approval (No. 91) Reading Teacher. This emphasis and requirements for the elementary education major can be completed concurrently.
Required ....................................... 20 hours
Reading and Language Arts: 23:113; $23: 140$ with
corequisite $23: 193$ (1 hour); 23:147 with
corequisite 23:192 (3 hours); 23:193 (4
additional hours).
One course in language development or linguistics ( 3 hours) to be taken from the following:
Reading and Language Arts: 23:111.
Communication and Theatre Arts: 50:128.
Communicative Disorders: 51:106.
Linguistics: 63:125; 63:130; 63:190.
3. Special Education and Pre-School Handicapped: These emphases are under the jurisdiction and supervision of the Department of Special Education and requirements are given on page 101.

## Middle School/Junior High School Education Major

The Middle School/Junior High School Education major leads to elementary certification ( $\mathrm{K}-8$ ) with a pprovals to teach in selected subject fields through grade 9 . The major is designed to prepare students to teach at the middle level (grades 4-9). The student will complete the General Education requirements, the Common Professional Sequence, the major requirements, a Professional Semester, at least one subject field area of 14 to 29 hours, and electives to complete a minimum of 130 hours. The student must include a course in human relations approved by the State Department of Public Instruction (DPI) and a course in American history or American government for certification.

Students must complete the following courses:
Required
13 hours
Educational Psychology: 20:116.
Special Education: 22:050 or 22:150.
Reading and Language Arts: 23:044; 23:132.
Educational Media: 24:031 or 24:131.
Professional Semester
17 hours
Elementary and Middle School/Junior High: 21:170.
Reading and Language Arts: 23:110.
Mathematics: 80:134.*
*80:030 and 80:131 are prerequisites to this course.
A 2.40 grade index in all course work at the University of Northern lowa and, also, a 2.40 g.p.a. on all course work at the university and elsewhere, or the approval of the head of the Department of Curriculum and Instruction, is required to enter the Professional Semester.
Subject Field: At least one area chosen from the following (see below for requirements for each program - also see departmental statements):

Coaching Endorsement
General Science
History
Home Economics
Industrial Arts
Language Arts
Mathematics
Modern Languages (French, German, Spanish)
Reading Education: Approval 91
Special Education: Approvals 80 and 81 (K-9)

## Subject Field Requirements

## Coaching Endorsement -

The coaching endorsement is for K-12. However, it does not qualify the student for certification to teach physical education at any level. (May only be taken as a supporting concentration area.)
Required:
Health: $41: 175 \ldots \ldots \ldots \ldots . . . . . . . . . . .$. . . . . . 2 hours
Physical Education: 42:122; 42:124; 42:125; 42:127

8 hours
Electives: 4 hours from-
Physical Education: 42:101; 42:102; 42:104; 42:105; 42:106; 42:107; 42:108; 42:109; 42:110; 42:111; 42:112; 42:113 4 hours 14 hours
Note: The student shall have directed or supervised laboratory experience in coaching; ordinarily this would be done during the time of student teaching. The course 42:118 (Practicum in Coaching - 2 hours) is available as a university elective.

| General Science - |  |
| :---: | :---: |
| Required: |  |
| Science and Science Education: 82:130 or |  |
| Elementary and Middle School/Junior |  |
| High: 21:141 | 3 hours |
| Required: |  |
| Science and Science Education: 82:194 | 2 hours |
| Required: a 3- or 4-hour course in each of the |  |
| following areas: physics, chemistry, biology, |  |
| earth science | 12-16 hours |
| Electives in science (to make a total of 26 hours).... | 5-9 hours |
|  | 26 hours |
| History - |  |
| Required: |  |
| History: 96:014; 96:015; 96:054; 96:055 . | 12 hours |
| Social Science: 90:190 . . . . . . . . . . . . . . . . . . . . | 3 hours |
| Electives: 6 hours in history ( 3 hrs. American, 3 hrs. world) | 6 hours |
| Six hours in social studies (94:014 highly |  |
|  | 27 hours |
| Home Economics - |  |
| Required: |  |
| Home Economics: 31:010; 31:015; 31:030; 31:039; |  |
| Industrial Arts - |  |
| Required: |  |
| Industrial Technology: 33:011; 33:018; 33:019; |  |
| Language Arts - |  |
| Required: |  |
| English Language and Literature: 62:003 or 62:103or 62:104; $62: 034 ; 62: 042$ or 62:043; $62: 052$ or |  |
|  |  |
| 62:053; $62: 165 ; 62: 190 . . . . . . . . . . . . . . . . . . . .17$. 17 hours |  |
| Linguistics: $63: 130 \ldots . . . . . . . . . . . . . . . . . . .$. . 3 hours |  |
|  |  |
|  | 23 hours |
| Mathematics - |  |
| Required: |  |
| Mathematics: 80:030; 80:048 or 80:060; 80:111;* |  |
| 80:112; 80:113 or 80:144; 80:072; 80:134; |  |
| 80:191.................................. 25 hours |  |
| Computer Science: 81:070 or 81:081** | 3 hours |
|  | 28 hours |
| *Departmental permission to use 80:046 instead of 80:111 will be granted when conditions warrant. |  |
| **Students with a substantial knowledge of BASIC should take 81:081. |  |
| Modern Languages |  |
| French - |  |
|  |  |
| Languages: 70:190 | 3 hours |
| French: 72:051 and 72:061 .................... 5 hours |  |
| 72:072; 72:101; 72:103* or 72:124 or 72:125; |  |
| plus electives. | $\begin{aligned} & 16 \text { hours } \\ & 24 \text { hours } \end{aligned}$ |

*If $72: 103$ is elected, the student is strongly advised to take one of the two courses in French Civilization.

| German - |  |
| :---: | :---: |
| Required: |  |
| Languages: 70:190 | 3 hours |
| German: 74:011 | 5 hours |
| 74:052 and 74:062 | 5 hours |
| 74:101; 74:123; 74:103 or 74:107; plus |  |
| electives | 24 hours |
|  |  |
| Spanish - |  |
| Required: |  |
| Languages: 70:190 | 3 hours |
| Spanish: 78:051 and 78:061; 78:052 and 78:062. | 10 hours |
| 78:101; 78:103; 78:123 or 78:140; plus two-hour |  |
| course in bilingual pre-practicum or bilingual |  |
| practicum | 11 hours |
|  | 24 hours |
| Reading Education: Approval 91 - |  |
| This emphasis satisfies the state requirements for certificate approval |  |
| as a reading teacher. This emphasis and requirements for the Middle |  |
| School/Junior High School Major can be completed concurrently. |  |
| Required: |  |
| Reading and Language Arts: 23:110;*23:140 and |  |
| 23:193** (corequisites); 23:147 and 23:192 |  |
| (corequisites); 23:132* . . . . . . . | 20 hours |
| One course in theories and strategies for language |  |
| development from the following | 2-3 hours |
| Reading and Language Arts: 23:111. |  |
| Communication and Theatre Arts: 50:128. |  |
| Communicative Disorders: 51:106. |  |
| Linguistics: 63:130, 63:190, or equivalent |  |
| One course in related language arts from the |  |
| following . | 3 hours |
| Reading and Language Arts: 23:113; 23:130. |  |
| Communication and Theatre Arts: $50: 101,50: 103$, 50:114, 50:129, 50:130. |  |
| Communicative Disorders: 51:101. |  |
| English Language and Literature: 62:165, $62: 193$, or equivalent. |  |

*These courses are also major requirements.
**This course is taken twice.
(Also, note that the Middle School/Junior High School majors selecting a concentration in reading must take 23:110 Reading and Language Arts prior to the Professional Semester in order to meet prerequisite requirements in the program.)

```
Special Education: Approvals }80\mathrm{ and }81\mathrm{ (K-9) -
Required:
    Special Education: 22:170; 22:171; 22:174; 22:180;
        22:182; 22:185; 22:192 (6 hours)
    22-23 hours
    Teaching: 28:135 . . . . . . . . . . . . . . . . . . . . . . . & hours
    26-27 hours
```


## Media Minor

Required:
Educational Media: 24:031 or 24:131; 24:101; 24:147; 24:150 . . . . . . . . . . . . . . . . . . . . . . . . . . 10 hours
Electives: six hours in media courses . . . . . . . . . . . 6 hours
16 hours

## Secondary Reading Minor - Teaching

Completion of this program qualifies a secondary teaching major to be recommended for certification as a reading teacher.
Required . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $21-23$ hours
Reading and Language Arts: 23:130; 23:132; 23:140 and 23:193 (1 - 1 hr .); 23:147 and 23:192; 23:193 (II - 2-4 hrs.)
English Language and Literature: 62:165; 62:193.
Electives in language arts from the following courses. . 5-6 hours
Communication and Theatre Arts: 50:031; 50:101; 50:103; 50:114.
Communicative Disorders: 51:101.
Linguisitics: 63:130; 63:190.
27-29 hours

## Safety Education

Safety Education Major - Teaching
Required . . . . .............................................. 33 hours
Educational Psychology: 20:116; 20: 138.
Educational Media: 24:131.
Safety Education: 30:030; 30:130; 30:131; 30:132;
30:135; 30:137; 30:140; 30:192.
Industrial Technology: 33:105.
Health: 41:010 (standard course); 41:072.
This major must be accompanied by a second teaching major or a teaching minor.

## Safety Education Minor - Teaching

Required . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 22 hours
Educational Psychology: 20:138.
Safety Education: 30:030; 30:130; 30:131; 30:135; 30:137; 30:140.
Industrial Technology: 33:105.
Highly recommended:
Educational Psychology: 20:116.
Safety Education: 30:192.
Approval to teach driver education will be recommended on the basis of completion of $30: 030,30: 130,30: 131$, and $30: 137$, plus 2 to 3 hours of electives as recommended by the department.

## Earth Science

(College of Natural Sciences)
W. Anderson, Head. L. Brant, W. De Kock, K. De Nault, D. Hoff, L. Kelsey, J. Walters.

Major programs are offered by the Department of Earth Science in two baccalaureate areas: the Bachelor of Arts and the Bachelor of Science. The Bachelor of Science program is recommended for most students who wish to prepare for careers as professional geologists and who plan to enter graduate school to pursue a Master of Science Degree program in geology. The Bachelor of Arts Degree - Geology Major provides a wider choice of electives than the Bachelor of Science Degree - Geology Major. With the appropriate choice of electives, the B.A. geology program can meet the needs of students preparing for additional study in selected fields of geology, paleontology, and related earth science areas.

## Bachelor of Science Degree Program

- 130 semester hours


## Geology Major

Required:
Geology: 87:031; 87:035; 87:125; 87:129; 87:130; 87:131; 87:135; 87:136; 87:141; 87:142; 87:180 ( 2 hours); Summer Field Course ( 6 hours)* . . .

42 hours
Required Cognate Areas 15-19 hours
Mathematics: 80:061.
Mathematics/Computer Science: 80:072 or 81:070 or 81:081.
Chemistry: 86:048 or 86:070.
Physics: 88:056 and 100-level cognate elective, or 88:131.

57-61 hours

A 100-level course in a cognate area is required unless met by taking 88:131. Cognate areas for the B.S. degree program in geology are understood to include astronomy, biology, chemistry, geography, mathematics, computer science, physics, meteorology, oceanography, and science. Specific cognate courses must be approved by the adviser and department head.
*Summer field course requirements to be met by credit earned at a field camp approved by the department.

## Bachelor of Arts Degree Programs

## Earth Science Major

Required -8 hours from the following: 8 hours
Chemistry: 86:044 and 86:048, or 86:070.
Physics: 88:054; 88:056; 88:130; 88:131.
Required - 3 to 5 hours from the following: 3-5 hours
Mathematics/Computer Science: 80:040; 80:046; 80:048; 80:060; 80:072; 81:070.
Required:
Earth Science: 87:010; 87:011; 87:021; 87:031; 87:035 14 hours
Required: 100 -level courses in earth science . 12 hours
Required electives:* selected from earth science, biology, chemistry, geography, physics, science) 6 hours 43-45 hours
*Electives from outside earth science must be approved by the head of the Department of Earth Science.

## Earth Science Major - Teaching

Required:
Science and Science Education: 82:190; 82:194.
Chemistry: 86:044 and 86:048, or 86:070.
Physics: 88:054; 88:056.
Earth Science: 87:010; 87:011; 87:021; 87:031; 87:035

31-34 hours
Electives in earth science: 100 -level courses (excluding 87:189) $\qquad$

12 hours 43-46 hours

## Geology Major

| Requir | 35-36 hours |
| :---: | :---: |
| Mathematics: 80:046 or 80:060. |  |
| Chemistry: 86:048 or 86:070. |  |
| Physics: 88:056 or 88:131. |  |
| Earth Science: 87:031; 87:035; 87:131; 87:135; 87:136. |  |
| Summer Field Course*. | 6 hours |
| Electives in geology (100-level). | 5 hours |
|  | 46-47 hours |
| *Summer field course requirements camp approved by the department. | arned at field |
| Recommended general electives - |  |
| Mathematics: 80:060; 80:061. |  |

## Astronomy Minor

Required
28-30 hours
Earth Science: 87:010; 87:011; 87:110; 87:150; 87:154.
Mathematics: 80:060, 80:061.
Physics: 88:130; 88:131; 88:060;* 88:061.**
*Not required if student has taken 88:054.
**Not required if student has taken 88:056.

## Earth Science Minor

Required: courses in earth science

## Earth Science Minor - Teaching

Required:
Earth Science: 87:010; 87:011; 87:021; 87:031; 87:035; and at least 2 hours of electives in earth science.

16 hours
Also required: a teaching major or minor in biology, chemistry, physics, or science.

## Economics

(School of Business)
B. Anderson, Head. F.Abraham, D. Cummings, C. Gillette, R. Hansen, K. McCormick, H. Otto, J. Rives, C. Strein, M. Yousefi.

Note: To graduate with a major in economics a student must:

1) complete $92: 053,92: 054,92: 103$, and $92: 104$ with at least a $C$ in each course whether taken at UNI or at an institution from which transfer credit for these courses is accepted; and
2) earn a 2.5 grade point average in all $92: x 8 x$ courses taken at UNI.

## Economics Major

Required ......................................... 15 hours
Economics: 92:053; 92:054; 92:103; 92:104; 92:169
Electives in economics (92:103 and 92:104 recommended to be taken before other advanced courses in economics) ........................... 21 hours 36 hours

No minor is required.
Economics Major - Teaching
Required ..... 18 hours
Social Science: 90:190.Economics: 92:053; 92:054; 92:100; 92:103; 92:104Electives in economics (92:103 and 92:104recommended to be taken before other advancedcourses in economics)18 hours 36 hours
A minor is required.

## Economics Minor - Liberal Arts

Required:
Economics: 92:053; 92:054; 92:103; 92:104 ....... 12 hours
Electives in economics (92:103 and 92:104
recommended to be taken before other advanced courses in economics) 6 hours 18 hours
Note: 92:053 and 92:054 are prerequisites for all $100(\mathrm{~g})$ economics courses.

## Economics Minor - Teaching

Required:
Economics: 92:053; 92:054; 92:103; 92:104 ....... 12 hours
Electives in economics (92:103 and 92:104
recommended to be taken before other advanced courses in economics)

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

## Educational Administration and Counseling

(College of Education)
R. Krajewski, Head. J. Albrecht, F. Carver, C. Curris, R. Decker, R. Frank, T. Hansmeier, D. Hanson, J. Kimball, W. Kline, R. Lembke, N. McCumsey, A. Smith, A. Vernon.

There are no undergraduate programs in the Department of Educational Administration and Counseling. See the graduate section of this catalog for programs within this departments jurisdiction.

## Educational Psychology and Foundations

## (College of Education)

L. Kavich, Head. J. Baty, T. Berg, L. Brown, C. Budlong, C. Dedrick, A. Dunbar, H. Erickson, S. Fortgang, Ln Froyen, S. Gable, H. Goodman, V. Hash, R. Lattin, K. Lee, P. Porter, B. Reppas, B. Rogers, J. Rozendaal, E. Rutkowski, D. Schmits, R. Scott, J. Smith, M. Strathe, J. Trout, B. Wilson.

There are no undergraduate programs in the Department of Educational Psychology and Foundations. See the graduate section of this catalog for programs within this department's jurisdiction.

## English Language and Literature

(College of Humanities and Fine Arts)<br>J. Robbins, Head. K. Boughman, D. Cahill, G. Cauvelth, J. Copeland, G. Day, B. DeHoff, C. Eblen, S. Gaies, R. Gish, C. Goldstein, R. Goodman, J. HiDuke, G. Hovet, T. Hovet, G. Hubly, S. Hudson, V. Johnson, E. Kalmar, J. Klinkowitz, C. LaRocque, B. Lounsberry, L. Rackstroun, T. Remington, O. Schmidt, C. Shields, A. Swensen, N. Thompson, L. van Lier, R. J. Ward, R. Wilson, E. Wood.

## English Major

Required:
English: 62:034; 62:042; 62:043; 62:052; 62:060 ... 15 hours
One of the following courses . . . . . . . . . . . . . . . . . 3 hours
English: 62:103; 62:104; 62:105; 62:174; 62:175; or
Journalism: 66:140
Linguistics: 63:125 or $63: 130$ or $63: 143$
3 hours
Electives in department, to include at least 12 hours of
100 -level courses in literature
21 hours
42 hours
English Major - Teaching
Required:
English: 62:034; 62:042; 62:043; 62:052; 62:060; 62:165; 62:190; 62:191; 62:193

24 hours
One of the following courses . ................... . . 3 hours
English: 62:103, 62:104, 62:105, or Joumalism: 66:140
Linguistics: 63:130; 63:125 or 63:143 or 63:190 ... 6 hours
Reading: $23: 130 \ldots . .$. ............................. 3 hours
Electives in department, to include at least 6 hours of
100 -level courses in literature
9 hours
45 hours
Note: Prerequisites for student teaching in English are: a grade point average of 2.5 in English major courses, and a grade of C or better in 62:190.

## English Linguistics Major

Required:
English: 62:034; $62: 042 ; 62: 052$; and one of the following -
English: 62:103; 62:104; 62:105; or Journalism:

Linguistics: 63:010; 63:125; 63:130; 63:143; 63:145; 63:154; 63:156; 63:158

12 hours
24 hours
Cognate electives - minimum of 6 hours from the
following. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6 hours
Psychology: 40:118.
Communicative Disorders: 51:105; 51:106.
Linguistics: 63:198.
Philosophy: 65:119.
Mathematics: 80:169.
Computer Science: 81:081.
42 hours
It is strongly recommended that native speakers of English majoring in TESOL 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.

## Teaching English to Speakers of Other Languages Major (TESOL)

Required:<br>English: 62:034; 62:042; 62:052; and one of the following English: 62:103, 62:104, 62:105, or Journalism: 66:140<br>12 hours<br>Linguistics: 63:130; 63:125 or 63:143; 63:154; 63:156; 63:192; 63:194; 63:197 19 hours<br>Electives in literature or linguistics 9 hours<br>40 hours

Note: International students must have achieved a TOEFL score of 600 or the equivalent in order to demonstrate their proficiency in English. An international student may be required to take additional English by attending 63:105 or 63:106 at the discretion of the TESOL and linguistics faculty. $63: 105$ and $63: 106$ may not be counted for credit on the TESOL program.

It is strongly recommended that native speakers of English majoring in TESOL 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.

Since these courses are given in a two-year sequence it is desirable for the student to begin the sequence at the beginning of the sophomore year. No foreign language is required.

This major does not make one eligible for certification to teach.

## Business Communications Minor

This interdisciplinary minor is offered jointly by the College of Humanities and Fine Arts and the School of Business. It is under the jurisdiction of the Departments of English Language and Literature, Information Management, and Communication and Theatre Arts. The minor requires a 12 -hour core plus six (6) hours from one of three emphases.
Required core:
Communication and Theatre Arts: 50:138; 50:163 6 hours
English Language and Literature: 62:104; 62:105 6 hours
Required: six (6) hours from one of three emphases
below
6 hours 18 hours

## Emphases -

Business:
Administrative Management: 18:113; 18:114.
Communications:
Communication and Theatre Arts: 50:183; 50:184; 50:185.
English:
Two of the following -
Journalism: 66:102; 66:141; 66:150.

## English Minor

Required:
English: 62:034; 62:042; 62:043; 62:052; 62:060 ... 15 hours
Linguistics: 63:125 or 63:130
3 hours
18 hours
English Minor - Teaching
Required:English: 62:034; 62:042; 62:043; 62:052; 62:190;and one of the following -
English: 62:103; 62:104; 62:105; or Journalism:
66:140 18 hours
Linguistics: 63:130 ..... 3 hoursEnglish: 62:193 orReading: 23:1303 hours24 hours
A minimum cumulative grade point average of 2.4 in courses takento complete this minor is required.
English Linguistics Minor
Required:
Linguistics: 63:125; 63:145; 63:154;63:156; 63:15814-15 hours
Journalism Minor - Teaching and Liberal Arts
Required ..... 9 hours
Journalism: 66:032; 66:040; 66:140
Electives. ..... 6 hours
15 hours
At least 6 hours from the following: Journalism: 66:102; 66:103; 66:104; 66:105; 66:110; 66:131; 66:132; 66:141; 66:150; 66:186; 66:198.
Educational Media: 24:147.

## Teaching English to Speakers of Other Languages Minor (TESOL)

Required:
Linguistics: 63:130; 63:154; 63:156; 63:192; 63:194; 63:197
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.

## Language Arts Subject Field - Middle School/Junior High Education Major



English Language and Literature: 62:003 or 62:103 or 62:104; 62:034; 62:042 or 62:043; 62:052 or 62:053; 62:165; 62:190 . . . . . . . . . . . . . . . . . . . . . 17 hours
Linguistics: 63:130. . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Electives in English . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours 23 hours
(See Department of Curriculum and Instruction, page _ـ_)
Note: Three interdepartmental programs offered cooperatively by the Department of Modern Languages and the Department of English Language and Literature are listed on pages ___ and $\qquad$ These are the TESOL/Modern Language Major - Teaching, the English Linguislics and Modern Language Combined Major, and the Comparative

## English/Modern Language Programs

## English Linguistics and Modern Language Combined Major

This major is offered cooperatively by the Department of English Language and Literature and the Department of Modern Languages, and is under the joint jurisdiction and supervision of these two departments. Required core 30 hours
English/Journalism/Linguistics: 62:034; 62:103 or 62:104 or 62:105 or 66:140; 63:145; 63:154;
63:156; 63:192; 63:125 or 63:130.
Languages: 70:105 or 70:110 or 70:120 or 70:180; and electives in linguistics to make a total of 30 hours.
Required: 27 hours from one of the language emphases
below
27 hours 57 hours

## Emphoses-

French: 27 hours beyond 72:002, including 72:072, and at least one course in civilization, literature, and translation/linguistics.
German: 27 hours beyond 74:002, including 74:071, and at least one course in civilization, literature, and translation/linguistics.
Spanish: 27 hours beyond 78:002, including 78:071, and at least one course in civilization, literature, and translation/linguistics.

## TESOL/Modern Language Major - Teaching

This major is offered cooperatively by the Department of English Language and Literature and the Department of Modern Languages, and is under the jurisdiction and supervision of these two departments.
Required core . . . . ................................ 31 hours
English/Journalism/Linguistics: 62:034; 62:103 or
62:104 or $62: 105$ or $66: 140 ; 63: 130 ; 63: 154 ;$
63:156; 63:192; 63:194; 63:197.
Languages: 70:105 or 70:110 or 70:120 or 70:180. $5-6$ hours of linguistics ( 63 :xax) courses.
Required: 30 hours from one of the language emphases
below
30 hours 61 hours

## Emphuses -

French:
Languages: 70:190.
French: 72:011; 72:051 (3 hrs.); 72:061 (2 hrs.); 72:072; 72:101; 72:108; 72:124 or 72:125; 72:180; at least one 3-hour French literature course.

## Cerman:

Languages: 70:190
German: 74:011 (5 hrs.); 74:052 (3 hrs.); 74:062 (2 hrs.); 74:071; 74:101; 74:107; 74:123; 74:180; and electives in German to make 30 hours.
Spanish:
Languages: 70:190.
Spanish: 78:051 (2 hrs.); 78:052 (2 hrs.); 78:061 (3 hrs.); 78:062 ( 3 hrs.); 78:071; 78:101; 78:107; 78:123 or 78:140 or 78:152; 78:180 or 78:185 or 78:195; and electives in Spanish to make 30 hours.
Note: International students must have achieved a TOEFL score of 600 or the equivalent.

## Comparative Literature Minor

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.

This is an interdisciplinary minor administered jointly by the Department of English Language and Literature and the Department of Modern Languages.
Required:
Languages: 70:105; 70:110 or 70:120 ............. . 6 hours
English: 62:161 ................................. 3 hours
A 100 -level course in English literature . . . . . . . . . . 3 hours
Electives: (see below*). . . . . . . . . . . . . . . . . . . . . . . . . . 7 hours
*For Foreign Language Majors Languages: 70:180.
English literature at the 100 -level (excluding 62:144, 62:147, 62:148).
*For Non-Foreign Language Majors Languages: 70:180.
7x:071 or 7x:072 (available in French, German or Spanish).

19 hours
A reading knowledge of one foreign language is required.

## Geography

(College of Social and Behavioral Sciences)
B. Nijim, Head. C. Austin, R. Chung, R. Clark, J. Fryman, J. Lu, D. May.

Note: For a geography major or minor, either 97:010 or 97:025 shall be taken; the course not selected may not be counted as either elective or required hours on any geography program.

## Geography Major

Required:


## Geography Major - Teaching

Required:
 97:112 or 97:115. .............................. . . . 3 hours
97:120 or 97:132. . . . . . . . . . . . . . . . . . . . . . . . 3 hours
97:130 or 97:170 or 97:185 .......... . . . . . . . . . 3 hours
Electives in geography . . . . . . . . . . . . . . . . . . . . . . 2-4 hours
36 hours
A minor in another teaching area is required.

## Geography Minor - Teaching and Liberal Arts

Required:
Geography: 97:010 or 97:025 or 97:031 . . . . . . . . . 3-4 hours
$\qquad$
Electives in geography . . . . . . . . . . . . . . . . . . . . . . . . 13-15 hours
20 hours

## School of Health, Physical Education, and Recreation

## (College of Education)

W. Thrall, Head. I. Ahrabi-Fard, D. Allen, J. Anderson, M. Bakley, C. Cooper, N. Covington, D. Cryer, T. Davis, F. Dolgener, S. Doody,
W. East, C. Ensign, D. Erusha, P. Geadelmann, E. Green, K. Green,
W. Green, J. Hall, C. Hanson, G. Henry, L. Hensley, S. Huddleston,
E. Kortemeyer, J. Marsh, R. Marston, D. McDonald, L. McDonnell,
J. Mertesdorf, P. Moffit, C. Phillips, N. Pittman, J. Richards, L. Schwarzenbach, S. Stodghill, G. Stych, D. Thompson, P. Van Rossum, J. Wilson.

General Education: At least two hours from 42:001 activity courses are required of all students; two additional hours from 41:015 or 42:001 may be elected.

Community Health Education Major
Required
48-54 hours
Management: 15:153.
Educational Media: 24:131.
Measurement and Research: 25:180 or
Mathematics: 80:072.
Counseling: 29:105.
Home Economics: 31:030.
Library Science: 35:112.
Health: 41:060; 41:153; 41:156; 41:158; 41:160; 41:163; 41:164; 41:168; 41:176.
Communication and Theatre Arts: 50:163.
Biology: 84:031.
Political Science: 94:132 or
Social Work: 45:040.
Electives: to be chosen from the following list $\qquad$ 65 hours
Accounting: 12:030.
Educational Psychology: 20:138; 20:142.
Home Economics: 31:037; 31:055; 31:057; 31:130; 31:152; 31:153; 31:155; 31:158; 31:177.
Psychology: 40:008; 40:123; 40:160; 40:161; 40:170; 40:173.
Health: 41:010; 41:015; 41:020; 41:072; 41:120; 41:146; 41:162.
Physical Education: 42:153.
Social Work: 45:121; 45:164; 45:171; 45:172; 45:173; 45:174.
Communication and Theatre Arts: 50:108.
Philosophy: 65:142.
Humanities: 68:194.
Biology: 84:032.
Sociology: 98:058; 98:060; 98:105.
Anthropology: 99:168.


## Health Education Major - Teaching

Required
Educational Psychology: 20:118.
Measurement and Research: 25:180 or Mathematics: 80:072.
Home Economics: 31:030.
Health: 41:010; 41:015; 41:072; 41:140; 41:142; 41:144; 41:153; 41:160; 41:163; 41:176.
Biology: 84:031.
Electives: minimum of three courses from Group I, and two courses from Group II for a minimum total of $\qquad$ 17 hours 50 hours
Group I:
Educational Psychology: 20:116; 20:140; 20:142; 20:151.
Special Education: 22:050 or 22:150.
Measurement and Research: 25:181.
Home Economics: 31:051; 31:055; 31:152.
Psychology: 40:155.
Communication and Theatre Arts: 50:026.
Sociology: 98:100.

| Group II: |  |
| :---: | :---: |
| Safety Education: 30:030. |  |
| Home Economics: 31:057; 31:130; 31:153; 31:155. |  |
| Psychology: 40:170. |  |
| Health: 41:020; 41:028; 41:060; 41:120; 41:138; |  |
| Physical Education: 42:050; 42:153. |  |
| Social Work: 45:171. |  |
| Humanities: 68:194. |  |
| Biology: 84:033. |  |
| Athletic Training Minor |  |
| Required | 27 hours |
| Home Economics: 31:030. |  |
| Health: 41:010; 41:015; 41:175; 41:182; 41:183; 41:184; 41:187 (4 hrs). |  |
| Physical Education: 42:151; 42:153. |  |
| Biology: 84:031. |  |
| Community Health Education Minor |  |
| Required | 17 hours |
| Health: 41:060; 41:153; 41:156; 41:158; 41:160; 41.163. 41.164; 41.176 |  |
| Electives in health education to be chosen from the |  |
| following list. | 5 hours <br> 22 hours |
| Accounting: 12:030. |  |
| Educational Psychology: 20:138; $20: 142$. |  |
| Home Economics: 31:037; 31:055; 31:057; 31:130; 31:152; 31:153; 31:155; 31:158; 31:177. |  |
| Psychology: 40:008; 40:123; 40:160; 40:161; 40:170; 40:173. |  |
| Health: 41:010; 41:015; 41:020; 41:072; 41:120; 41:146; 41:162. |  |
| Physical Education: 42:153. |  |
| Social Work: 45:121; 45:164; 45:171; 45:172; 45:173; 45:174. |  |
| Communication and Theatre Arts: 50:108. |  |
| Philosophy: 65:142. |  |
| Humanities: 68:194. |  |
| Biology: 84:031; 84:032. |  |
| Sociology: 98:058; 98:060; 98:105. |  |
| Anthropology: 99:168. |  |
| Health Education Minor - Teaching |  |
| Required | 13 hours |
| Health: 41:010; 41:015; 41:072; 41:140; 41:144; 41:153; 41:160 |  |
|  |  |
| Electives (from the following). | 9 hours |
| Educational Psychology: 20:118. |  |
| Safety Education: 30:030. |  |
| Home Economics: 31:030; 31:057; 31:155. |  |
| Psychology: 40:170. |  |
| Health: 41:020; 41:028; 41:060; 41:138; 41:142; <br> 41:146; 41:156; 41:162; 41:163; 41:164; 41:176. |  |
| Physical Education: 42:050; 42:153. |  |
| Social Work: 45:171. |  |
| Humanities: 68:194. |  |
| Biology: 84:031 or 84:138. |  |

Home Economics: 31:057; 31:130; 31:153; 31:155.
Psychology: 40:170.
Health: 41:020; 41:028; 41:060; 41:120; 41:138;
41:146; 41:156; 41:162; 41:164.
Physical Education: 42:050; 42:153.
Social Work: 45:171.
Humanities: 68:194.
Biology: 84:033.

## Athletic Training Minor

Required
27 hours
Home Economics: 31:030. 41:184; 41:187 (4 hrs).
Physical Education: 42:151; 42:153.
Biology: 84:031.
Community Health Education Minor
Required
17 hours

5 hours
22 hours
ccounting: 12:030
Home Economics: 31:037; 31:055; 31:057; 31:130; 31:152; 31:153; 31:155; 31:158; 31:177.
$1,40.170$
Health: 41:010; 41:015; 41:020; 41:072; 41:120;
41:146; 41:162.
Physical Education: 42:153.
ocial Work: 45:121; 45:164; 45:171; 45:172;
Communication and Theatre Arts: 50:108.
Philosophy: 65:142.
Humanities: 68:194.
Biology: 84:031; 84:032.
Sociology: 98:058; 98:060; 98:105.
Anthropology: 99:168.


Required 13 hours

9 hours
Educational Psychology: 20:118.
Home Economics: 31:030; 31:057; 31:155.
Psychology: 40:170.
Health: 41:020; 41:028; 41:060; 41:138; 41:142;
Physical Education: 42:050; 42:153.
Social Work: 45:171.
Biology: 84:031 or 84:138.

Physical Education Major - Teaching
Required: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 32 hours
Health: 41:010; 41:072; 41:175.
Physical Education: 42:043; 42:044; 42:050; 42:055; 42:151; 42:152; 42:153; 42:160; 42:163; 42:168; 42:174; 42:176.
Required advanced skill and coaching theory - one course from: 42:101; 42:102; 42:104; 42:105; 42:106; 42:107; 42:108; 42:109; 42:110; 42:111; 42:112; 42:113 2-3 hours
Required* fundamental physical activities in the following: 42:011 (1 hr.); 42:012 (1 hr.); 42:013 (2 hrs.); 42:014 (1 hr.); 42:015 (3 hrs.); 42:016 ( 1 hr )

9 hours
Required: an emphasis in one of the following areas for a minimum of 6 hours 49-50 hours

## Emphases -

Aquatics -
Required: 42:001 (Water Safety Instruction); 42:109; 42:120.
Electives from 42:001 (Canoeing, Diving, Skin and Scuba, Synchronized Swimming, Water Polo); 42:040 or 42:168; 42:157.

## Coaching -

Required: 42:122; 42:127.
Electives from advanced skill and coaching theory: 42:101; 42:102; 42:104; 42:105; 42:106; 42:107; 42:108; 42:109; 42:110; 42:111; 42:112; 42:113; 42:118.

## Dance -

Required: 42:132.
Electives from: 42:001 (Aerobic Dance; Beginning or Intermediate Ballet); 42:031; 42:032; 42:135.

## Elementary -

Required: 42:040.
Electives from: Elementary and Middle School/Junior High: 21:152. Physical Education: 42:040; 42:132; 42:145. Communication and Theatre Arts: 50:130.

## Adapted -

Required:
Special Education: 22:050 or 22:150.
Physical Education: 42:040; 42:157.
*Students with a major in physical education will substitute two hours of activity for 42:001.

## Coaching Minor - Teaching and <br> Coaching Endorsement - Middle SchoolJunior 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. (May only be taken as a supporting concentration area.) ("See Department of Curriculum and Instruction, p. 70, for Middle School/Junior High Major Program.)

| Required: |  |
| :---: | :---: |
| Health: 41:175 | 2 hours |
| Physical Education: 42:122; 42:124; 42:125; 42:127 | 8 hours |
| Electives: 4 hours from - |  |
| Physical Education: 42:101; 42:102; 42:104; |  |
| 42:111; 42:112; 42:113 . . . . . . . . . . . . . . . . . | 4 hours |

14 hours
Note: The student shall have directed or supervised laboratory experience in coaching; ordinarily this would be done during the time of student teaching. The course 42:118 (Practicum in Coaching - 2 hours) is available as a university elective.

## Dance Minor - Teaching and Liberal Arts

Required activities
6 hours
42:001 (Aerobic Dance); 42:001 (Beginning or Intermediate Ballet); 42:013 (Folk, Square and Social Dance); 42:013 (Rhythm in Movement, Sport, and Dance); 42:001 (Advanced Social Dance); 42:031.
Required
9 hours
Physical Education: 42:132; 42:135; 42:168; 42:185 or 42:198.
Communication and Theatre Arts: 50:130.
Electives from at least two of the following groups for
a total of.
6 hours
21 hours
Group I -
Physical Education: 42:032; 42:040; 42:124.
Group II -
Educational Media: 24:031; 24:147.
Communication and Theatre Arts: 50:031; 50:034; 50:102; 50:148.
English Language and Literature: 62:070.
Group III -
Music: 52:102; 54:xax (1 hour).
Art: 60:001; 60:003; 60:141.

## Physical Education Minor - Elementary Teaching

Required 9-10 hours
Physical Education: 42:040; 42:043; 42:044 or 42:045; 42:132; 42:145.
Required physical activities (chosen in consultation with department) from: 42:001; 42:011; 42:013; 42:014; 42:015
Electives from the following $7-8$ hours
Elementary and Middle School/Junior High: 21:152.
Health: 41:010; 41:142.
Physical Education: 42:157.
Recreation: 43:164.
Communication and Theatre Arts: 50:130.

## Community Recreation Major

Students must have a 2.00 grade point average to declare a recreation major. Recreation majors are required to have a 2.00 UNI grade point average and a 2.25 grade point average in 43 xox courses to be eligible to register for 43:184, 43:187, and 43:189. Recreation majors should note other prerequisites for 43:187.
Required
29 hours
Accounting: 12:030.
Health: 41:010.
Physical Education: 42:120.
Recreation: 43:010; 43:020; 43:021; 43:030; 43:031; 43:040; 43:041; 43:110; 43:114; 43:120; 43:189.
Communication and Theatre Arts: 50:035; 50:163.
Required:
Recreation: 43:184; 43:187 . . . . . . . . . . . . . . . . . . . . 15 hours
Required: 3 hours from the following . . . . . . . . . . . . . . 3 hours
Management: 15:153.
Administrative Management: 18:119.
Psychology: 40:157; 40:158.
Electives: 12 hours from one of the eight areas listed below 12 hours 59 hours
Areas:
Aquatics -
Physical Education: 42:124; 42:125.
Required competency: current WSI certification.
Electives: 8 hours from -
Physical Education/Recreation: 42:001 or 42:011 (advanced swimming, canoeing, diving, advanced lifesaving, WSI, scuba, synchronized swimming, water polo); 42:109; 42:157; 42:168 (aquatics); 42:181; 43:112.
Ast -
Art: 60:001; 60:055.
Electives: 6 hours from -
Art: 60:040; 60:041 and others in consultation with academic adviser.

## Camping -

Recreation: 43:140; 43:141; 43:144.
Electives - 5 hours from -
Physical Education: 42:001 (archery, backpacking, canoeing, lifesaving, WSI, scuba); 42:045.
Recreation: 43:142.
Communication and Theatre Arts: 50:130.
Art: 60:055.
Science and Science Education: 82:132.

## Dance -

Physical Education: 42:013; 42:132.
Communication and Theatre Arts: 50:130.
Electives - 6 hours from -
Physical Education: 42:001 (Dance: aerobic, ballet, folk, modem, social, square); 42:013; 42:124.

## Fitness -

Physical Education: 42:124; 42:153; 42:156.
Electives: 5 hours from -
Home Economics: 31:030.
Health/Physical Education/Recreation: 41:072;
41:172; 42:012; 42:Axx (aerobic dance, weight lifting, conditioning): 43:165.

## Music -

Music: 52:102; 53:0xx (Music Organizations and Ensembles - 1 hr .); 54:Nxx (Applied Music for the Non-Music Major - 1 hr .).
Electives: 8 hours from -
Music: 56:110; 57:050; 57:141; 57:143.

## Sports -

Physical Education/Recreation: 42:124; 42:125; 43:112; three hours from 42:011; 42:012, 42:014, 42:015, 42:016.
Electives: 3 hours from -
Health/Physical Education: 41:175; 42:101-113; 42:127; 42:168.

## Theatre -

Communication and Theatre Arts: 50:130; 50:134.
Electives: 6 hours from -
Communication and Theatre Arts: 50:046; 50:047; 50:114; 50:168.

## Therapeutic Recreation Major

Students must have a 2.00 g.p.a. to declare a recreation major. Recreation majors are required to have a 2.00 UNI g.p.a. and a 2.25 g.p.a. in 43:xax courses to be eligible to register for 43:184, 43:187, and 43:189. Recreation majors should note other prerequisites for 43:187. Required:

Home Economics 31:055.
Health/Physical Education/Recreation: 41:010;
42:124; 43:010; 43:020; 43:021; 43:030; 43:031;
43:040; 43:110; 43:114; 43:123; 43:160; 43:161;
43:162; 43:163; 43:164; 43:184; 43:187; 43:189.
Communication and Theatre Arts: 50:035; 50:163. .
52 hours
Electives: 14 hours from at least four of the following six areas 14 hours 66 hours

1) Sociology:

Home Economics: 31:153.
Humanities: 68:194.
Sociology: 98:121 (or 45:121); 98:123; 98:125; 98:126; 98:127.
Social Work: 45:121 (or 98:121); 45:171; 45:173; 45:174; 45:175.
2) Psychology:

Psychology: 40:142 or
Educational Psychology: 20:142.
Psychology: 40:123; 40:125; 40:127; 40:170; 40:173.
3) Special Education:

Special Education: 22:050 or 22:150; 22:153.
Communicative Disorders: 51:101.
4) Human Services:

Counseling: 29:103; 29:105.
5) Adapted Physical Education:

Health/Physical Education: 41:172; 42:156; 42:157.
6) Physical/Biological Science:

Physical Education: 42:050; 42:151; 42:153.
Biology: 84:030.

## History

(College of Social and Behavioral Sciences)
D. Whitnah, Head. H. Cheng, J. Eiklor, W. Graves, H. Jones, J. Kamerick, D. Maier, R. Martin, R. Newell, T. O'Connor, C. Quirk, G. Riley, T. Ryan, R. Sandstrom, D. Shepardson, A. Sunseri, R. Talbott, H. Thompson, D. Walker, H. Wohl.

Note: Niether 96:070 nor 96:123 may be counted toward history majors or minors.

## European Studies Major

This is an interdisciplinary program offered jointly by the College of Social and Behavioral Sciences and the College of Humanities and Fine Arts, and is under the jurisdiction of the heads of the Departments of History and Modern Languages.

To be elected as a second major with a major in history or a major in a foreign language (French, German, Spanish) or Russian Area Studies.
Required core courses 25 hours
Humanities: 68:021.
History: 96:054; 96:156; $96: 170$ (for students in Russian) or 96:172 (for students in German) or 96:174 (for students in French) or 96:186 (Studies in History: Spain, for students in Spanish) or 96:165 (for students with an emphasis in English history).
Philosophy: 65:101 or $65: 103$ or $65: 104$.
Electives in history, political science, economics or geography - approved by adviser ( 6 hours outside of history) - 9 hours
Foreign Language component* ....................... 22 hours
22 hours beyond first-year French, German, Russian
or Spanish, to include:
French: 72:072; 72:101; 72:124 or 72:125 or
German: 74:071; 74:101; 74:123 or 74:150
or
Russian: 77:101; 77:102; 77:141
or
Spanish: 78:071; 78:101; 78:123
One 3-hour course in translation, literature or linguistics within the Department of Modern Languages.
One summer's study abroad in Europe required for students in French, German, and Spanish and highly recommended for students in Russian. Required for students emphasizing English history and language: one summer's study abroad in the British Isles.

47 hours
*With permission, students emphasizing the British Isles may substitute Gaelic, Old, or Middle English for this requirement.


History Major - Teaching
Required:
Humanities: 68:021 or 68:022 (if both courses are not taken for General Education)
$0-4$ hours
Social Science: 90:190
3 hours
History: 96:010 (this course must be taken immediately after major is declared); 96:014; 96:015; 96:193 11 hours
Electives in history: a minimum of 19 hours (to include at least 9 hours of European history and 3 hours of non-Western history)

19 hours
33-37 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.

## History Minor

Required:
Electives in history excluding courses used to meet General Education requirements 18 hours
96:015 and 96:055 are strongly recommended.

## History Minor - Teaching

Required:
History: $96: 014 ; 96: 015 ; 96: 054 ; 96: 055 \ldots . . . . . . . \quad 12$ hours
Social Science: $90: 190$ (unless already taken on
major) . . . . . . . . . . . . . . . . . . . . . . . . . $0-3$ hours

Electives in history. . . . . . . . . . . . . . . . . . . . . . . . 9 hours
21-24 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.

## History Subject Field - Middle School/Junior High Education Major*

Required:
History: 96:014; 96:015; 96:054; 96:055 . . . . . . . . . 12 hours
Social Science: 90:190 . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Electives: 6 hours in history (3 hrs. American, 3 hrs. world)

6 hours
Six hours in social studies (94:014 highly recommended) 6 hours 27 hours

## Home Economics

(College of Social and Behavioral Sciences)
V. Noack, Acting Head. L. Beykirch, P. Conklin, M. Durant, M. Franken, J. Kenney, J. Megivern, J. Morgan, K. Morgan, B. Pershing, K. Roberts, J. Spaide, M. Story, J. Wells, M. Widmer.

The University of Northem Iowa's home economics unit is accredited by the Council for Professional Development of the American Home Economics Association.

## Home Economics Major - Teaching

Required:
Home Economics: 31:010; 31:015; 31:018; 31:030; 31:038; 31:039; 31:052; 31:062; 31:065; 31:069; 31:070; 31:110; 31:150; 31:177; 31:190; 31:193 40 hours
Physical, chemical, or biologial science in addition to general education (may include 42:050) 6 hours 46 hours
In order to receive departmental approval to student teach, a student on this program must satisfy both the university requirements for student teaching and the following specific departmental requirements:

1. Successful completion of $31: 190$.
2. No grade less than $C$ in any departmental course applied to this program, unless the student has a grade point average of 2.50 or above in all departmental courses to be applied to this program.
A minor (minimum of 15 hours) is required.

## Vocational Home Economics Major - Teaching

Required:
Home Economics: 31:010; 31:015; 31:018; 31:035; 31:037; 31:038; 31:052; 31:062; 31:065; 31:069; 31:070; 31:110; 31:150; 31:172; 31:177; 31:181; 31:182; 31:190; 31:193

48 hours
Chemistry: 86:061; 86:063........................ . 8 hours
Biology: 84:033 3 hours
Electives: 100 -level home economics courses 3 hours 62 hours
Also required: 400 hours of student-initiated and departmentapproved work experience in home economics occupations to meet state vocational certification requirements.

In order to receive departmental approval for student teaching, a student on this program must satisfy both the university requirements for student teaching and the following specific departmental requirements:

1. Successful completion of 31:190.
2. No grade less than $C$ in any departmental course applied to this program, unless the student has a grade point average of 2.50 or above in all departmental courses to be applied to this program.
No minor is required.
Vocational Home Economics Teaching majors may get DPI Endorsement \#53 for Pre-Kindergarten/Kindergarten teaching by completing an additional 31 hours (see Early Childhood Education Major).
*See Curriculum and Instruction, p. 70.

## Home Economics - Design and Human Environment Major

Required:
Home Economics: 31:030; 31:061; 31:063; 31:064;
31:066; 31:067; 31:068; 31:070; 31:110; 31:125;
31:126; 31:127; 31:152; 31:164; 31:193; 31:195 .
One of the following three emphases for a total of

48 hours 12 hours 60 hours

## Emphases:

1) Ast -

Art: 60:026; 60:041.
Six hours from -
Art: 60:003; 60:018; 60:025; 60:027; 60:032; 60:080.
2) Behavioral Sciences -

Psychology: 40:008; 40:175.
Six hours from -
Home Economics: 31:055.
Psychology: 40:157.
Geography: 97:010; 97:130.
Sociology: 98:080.
3) Business -

Marketing: 13:152.
Management: 15:080.
Six hours from -
Accounting: 12:030.
Marketing: 13:140; 13:141; 13:147.
Management: 15:153.

## Home Economics - Dietetics Major

Required:

Biology: 84:033; 84:138 .......................... . . 7 hours
Chemistry: 86:048; 86:120; 86:123; 86:150.
Management: 15:153
14 hours 3 hours 62 hours
Planning for this major should begin in the freshman year. To meet the academic requirements of the American Dietetic Association Plan IV for post-graduate internships, students must carefully plan their programs to include courses from psychology, sociology, anthropology, statistics, computer science, economics, business administration, and natural sciences.

## Home Economics - Family Services Major

Required:
Home Economics: 31:010; 31:030; 31:052; 31:055;
31:056; 31:057; 31:065; 31:070; 31:151; 31:153;
31:154; 31:155; 31:156; 31:177; 31:193; 31:195 .
42 hours
Electives: 100 -level department-approved courses in areas such as gerontology, family life education, human relationships, or adult education $\qquad$ 12 hours 54 hours
A 2.4 grade point average is required for declaration of this major, registration for 31:195 Pre-Professional Experience, and graduation. Departmental approval is required for declaration of major and registration for 31:195 Pre-Professional Experience. Procedures for approval are available in the departmental office.

## Home Economics in Business - Clothing and Textiles Major

## Required:

Home Economics: 31:010; 31:015; 31:018; 31:030; 31:052; 31:065; 31:070; 31:110; 31:193;
31:195*..................................... 26 hours
One of the two options below for a total of ........ $\quad 29$ hours 55 hours

## Fashion Merchandising Option

Required -
Home Economics: 31:020; 31:108; 31:115.
Marketing: 13:152.
Nine hours from the following: Accounting: 12:030.
Marketing: 13:140; 13:141; 31:171.
Marketing: 13:149 or
Management: 15:153.
Electives - eleven hours from: 31:111; 31:112; 31:113; 31:114; 31:116; 31:119; 31:184; 31:199 (Fashion Study Tour).
Recommend: 150:080 or 81:025; 92:024; 98:058.

## Fashion Promotion Option -

Required:
Home Economics: 31:020; 31:108; 31:115.
Communication and Theatre Arts: 50:077; 50:163.
Journalism: 66:040.
Six hours from:
Journalism: 66:104; 66:110;
Marketing: $13: 140 ; 13: 152$;
Journalism: 66:102 or
Communication and Theatre Arts: 50:183;
Journalism: 66:140 or
Communication and Theatre Arts: 50:034;
Journalism: 66:141 or
Educational Media: 24:131.
Electives - 8 hours from:
Home Economics: 31:111; 31:112; 31:113; 31:114; 31:116; 31:117; 31:119; 31:184; 31:199 (Fashion Study Tour).
*Field Experience might be substituted for Pre-Professional Experience.

## Home Economics in Business - Foods and Nutrition Major

## Required:

Home Economics: 31:010; 31:035; 31:037; 31:038;
31:052; 31:062; 31:065; 31:070; 31:107; 31:130
or 31:137; 31:142; 31:144; 31:145; 31:146;
31:193; 31:195 .............................. 46 hours
Biology: 84:033 .................................. 3 hours
Chemistry: 86:061; 86:063....................... 8 hours
One of the following two emphases for a total of. . . 9 or 12 hours
66 or 69 hours

## Business Emphasis:

Marketing: 13:152
Management: 15:080
One of the following courses -
Accounting: 12:030 or
Marketing: 13:140 or
Management: 15:153.
Business Communication Emphasis:
Management: 15:153
Information Management: 18:113
Communication and Theatre Arts: 50:138; 50:163

## Family Life Education Minor

Required:
Home Economics: 31:051; 31:055; 31:070; 31:152; 31:155; 31:157; 31:150 or 31:153.
$20^{*}$ hours
*Other courses approved by the adviser must be substituted to make a total of at least 15 semester hours if courses listed are already counted on the student's major.

This minor does not qualify one for teaching home economics.

## Home Economics Minor

Required:
Home Economics: 31:010; 31:030; 31:060; 31:070;

31:152
13 hours
Electives in home economics 6 hours 19 hours

## Home Economics Subject Field - Middle <br> School/Junior High Education Major*

Required:
Home Economics: 31:010; 31:015; 31:030; 31:039; 31:060; 31:065; 31:070; 31:152; 31:190; 31:193 . 25 hours
*See Department of Curriculum and Instruction, page 70.

## Industrial Technology

(College of Natural Sciences)
R. Bro, Head. M. Betts, E. Dennis, H. Egger, M. Fahmy, J. Fecik, A. Freitag, D. Gobeski, C. Johnson, J. LaRue, N. Lovata, L. Miller, P. Miller, R. Pershing, D. Pine, B. Rogers, J. Schultz, A. Tolu Honary, M. White.

## Bachelor of Technology Degree Programs

-130 semester hours
Construction Technology Major
Major requirements. 78 hours
Accounting: 12:030.
Management: 15:153.
Industrial Technology: 33:005; 33:011; 33:018 (1 hr); 33:020; 33:032; 33:115; 33:116; 33:136;
33:137; 33:149; 33:166; 33:167; 33:170; 33:173;
33:179; 33:187; 33:196.
Mathematics: 80:040; 80:046.
Computer Science: 81:070.
Chemistry: 86:020.
Physics: 88:054; 88:056.

## Energy and Power Technology Major

Major requirements. 74-78 hours
Accounting: 12:030.
Marketing: 13:152.
Management: 15:070.
Industrial Technology: 33:005; 33:020; 33:032;
33:036; 33:038; 33:126; 33:129; 33:143; 33:144;
33:152; 33:156; 33:157; 33:162; 33:174; 33:176; 33:187.
Mathematics: 80:048, or 80:060 and 80:061.
Computer Science: 81:070.
Chemistry: 86:020.
Physics: 88:054; 88:056.
Manufacturing Technology MajorRequired61 hours
One of the following computer programming courses:
Management: 15:080;
Information Management: 18:070;
Computer Science: 81:070, 81:025.
Management: 15:153.
Industrial Technology: 33:011; 33:024; 33:113; 33:132; 33:143; 33:148; 33:162; 33:170; 33:187.
English Language and Literature: 62:105.
Mathematics: 80:046; 80:048.
Chemistry: 86:020.
Physics: 88:054; 88:056.
Concentration (select one) . . . . . . . . . . . . . . . . . . . . . 18-21 hours
Mechanical Design (21 hours) -
Industrial Technology: 33:110; 33:112; 33:114; 33:117; 33:118; 33:172. Art: 60:018.
Production (18-19 hours) -
Industrial Technology: 33:041; 33:130 (repeated for 4 hours) or 33:134; 33:144; 33:145; 33:146; 33:197.
Electives from the following list, or the other concentration in the Manufacturing Technology major, or with adviser's approval 8 -11 hours 90 hours
Management: 15:070.
Industrial Technology: 33:036; 33:038; 33:119; 33:147; 33:152; 33:155; 33:177; 33:179; 33:192; 33:196.
Psychology: 40:157; 40:158.
Economics: 92:053; 92:116.

## Vocational Technical Education Major

Required 44 hours
Educational Psychology: 20:017; 20:018; 20:030; 20:040.
Teaching: 28:139.
Industrial Technology: 33:101; 33:181; 33:191; 33:193.
Mathematics: 80:040; 80:046.
Chemistry: 86:020.
Physics: 88:054; 88:056.
Required: 33:171 Technical Work Experience and concentration 36 hours 80 hours

## Concentrations:

Required: department approved concentration of at least 36 semester hours to include 33:171 Technical Work Experience and one of the following concentrations: Construction Technology, Graphic Arts Technology, Manufacturing Technology, Mechanical Design/Drafting Technology, Power and Energy Technology, or a technical concentration of 33:171 Technical Work Experience, plus a competency examination in a technical emphasis in an industrial, trade, or technical field.

## Bachelor of Arts Degree Programs



## Industrial Arts Subject Field - Middle <br> Schoo/Junior High School Education Major*

Required:
Industrial Technology: 33:011; 33:018 (2 hrs); 33:019; 33:020; 33:022; 33:032; 33:036; 33:114; 33:190

30 hours
*See Department of Curriculum and Instruction, page 70.

# Information Management 

(School of Business)

> J. Burrou, Acting Head. L. Gammill, J. Handorf, G. Hansen, A. Klink, K. Nantz, J. Reed, G. Tmpany, S. Warner.
> Note: To graduate with a major in Business Teaching or Office Information Systems from the Schol of Business a student must complete 92:053, $92: 05,12: 030,12: 031,15: 020$ and $15: 070$ with at least a C- in each course, whether taken at UNI or an institution from which transfer credit is accepted; mustearna a.2 cumulative grade point average at UNI (2.4 for teaching majors; and must earn an overall 2.2 grade point averare in 12:xxx, 13:oxx, 15:xox, $18: x x x$, and $92: x x x$ courses taken at UNI.

## Business Teaching

Required business core . ............................ . . 39 hours
Accounting: 12:030; 12:031.
Marketing: 13:152.
Management: 15:020; 15:070; 15:100; 15:151; 15:153; 15:154; 15:175.
Information Management: 18:070.
Economics: 92:053; 92:054.
Required ........................................... . 20 hours
Management: 15:101.
Information Management: 18:014; 18:051; 18:060; 18:113; 18:115; 18:117; 18:190.

59 hours

## Other Certification Options:

Additional vocational certification is available in office education, marketing education, and shorthand.

## Expanded Career Option for Secondary Teacher Certification

(Available to non-teaching business majors only.)
Majors in Accounting, Office Information Systems, Marketing, and Management, in the School of Business have the option of receiving secondary teaching certification and approval to teach in up to five business areas. A student may complete this option by taking the required certifying courses as general university electives. The total number of hours required for certification will be between 27 and 38, depending upon the student's major and/or emphasis. All students receiving certification through the university must complete a minimum of 130 hours, including credit for American history or American government, and the approved human relations course. Specific certification requirements and information about this expanded career option may be obtained from the Department of Information Management office.

| Office Information Systems Major |  |
| :---: | :---: |
| Required core | 39 hours |
| Accounting: 12:030; 12:031. |  |
| Marketing: 13:152. |  |
| Management: 15:020; 15:070; 15:100; 15:151; 15:153; 15:154; 15:175. |  |
| Information Management: 18:070. |  |
| Economics: 92:053; 92:054. |  |
| Dequired | 19 hours |
| Information Management: 18:060; 18:113; 18:117; 18:119; 18:120; 18:130; 18:160. |  |

Must pass departmental typing equivalency exam or complete either 18:050 or 18:051.

## Business Communications Minor

This interdisciplinary minor is offered jointly by the School of Business and the College of Humanities and Fine Arts. It is under the jurisdiction of the Departments of Information Management, English Language and Literature, and Communication and Theatre Arts. The minor requires a 12 -hour core plus six (6) hours from one of three emphases.
Required core
12 hours
Communication and Theatre Arts: 50:138; 50:163.
English Language and Literature: 62:104; 62:105.
Required: six (6) hours from one of three emphases
below
6 hours
18 hours

## Emphases:

Business -
Information Management: 18:113; 18:114.
English -
Two of the following courses: Journalism: 66:102; 66:141; 66:150.
Speach -
Communication and Theatre Arts: 50:183; 50:184; 50:185.

## Business Teaching Minor

Required . . . . . . . . . . . ................................. . . 29 hours
Accounting: 12:030; 12:031.
Management: 15:010; 15:100; 15:101.
Information Management: 18:014; 18:051; 18:060; 18:070; 18:113; 18:190.
A student desiring a minor in Business Teaching must have the minor program approved by the Business Teaching adviser.

## Library Science

(College of Education)

## E. Martin, Head. L. Hiland.

## Library Science Minor

Required .................................................. 17 hours
Library Science: 35:110; 35:113; 35:115; 35:118; 35:121; 35:132 or 35:134.
Electives 2-4 hours 19-21 hours

## Library Science Minor - Teaching

Required 20 hours
Library Science: 35:110; 35:113; 35:115; 35:118; 35:121; 35:132 or 35:134.
Educational Media: 24:131.
Students completing this minor can serve as teacher-librarian in kindergarten, grades 1-9, or grades 7-12, depending on the level of their basic teaching certificate.

## Library Science - Teaching Endorsement

Students who already hold a bachelor's degree and a valid Iowa certificate may earn an Endorsement in Library Science for Teaching Certification without completing either an undergraduate major or a graduate degree in Library Science upon the successful completion of the following program. (This may be a combination of graduate and undergraduate credit.)
Required
25 hours
Library Science: 35:110; 35:113; 35:115; 35:118; 35:121; 35:132 or 35:134; 35:225; 35:290.
Educational Media: 24:131.
Electives in library science or educational media ..... $\quad 7$ hours
32 hours

## Management

## (School of Business)

T. McAdams, Head. D. Ashbaugh, D. Birru, E. Brooks, W. Coleman, C. Cooley, S. Cax, C. Das, W. Evenson, T. Frost, L. Goulet, P. Goulet, A. Jedlicka, C. Kirk, B. Mardis, G. Mills, R. Mills, F. Moussavi, R. Natarajan, E. Peterson, A. Rappaport, R. Roth, M. Rueschhoff, R. Waller, C. Webster, J. Wilmesmeier, H. Wilson, R. Wyatt.

Note: To graduate with a major in management from the School of Business a student must complete 92:053, 92:054, 12:030, 12:031, 15:020, and 15:070 with at least a $C$ - in each course whether taken at UNI or an institution from which transfer credit for these courses is accepted; must earn a 2.2 cumulative grade point average at UNI; and must earn an overall 2.2 grade point average in 12:xxx, 13:xax, 15:xxx, $18: x x x$, and 92 :xax courses taken at UN.

## Management Major

Required business core . ............................ . . 39 hours
Accounting: 12:030; 12:031.
Marketing: 13:152.
Management: 15:020; 15:070; 15:080; 15:100; 15:151; 15:153; 15:154; 15:175.
Economics: 92:053; 92:054.
Required
6 hours
Management: 15:163; 15:165.
Electives: at least 12 hours by completing one of the four emphases listed below 12 hours 57 hours

## Emphases:

1. Business AdministrationGroup I - Choose two of the following three areas:
a) $15: 161$ or $15: 164$;
b) $15: 155$;
c) $15: 166$.
Group II - Choose one of the following courses:
Accounting: 12:131.
Marketing: 13:140.
Information Management: 18:113.
Economics: 92:160.
Group III - Choose one of the following courses:
Any additional course from Group I or Management: 15:105.
Management: 15:150; 15:156; 15:158; 15:168; 15:181; 15:187; 15:189.
2. Financial Management
Management: 15:155.
Three of the following courses:
Management: 15:150; 15:152; 15:156; 15:157; 15:158; 15:162;
Accounting: 12:129; Economics: 92:113*.
${ }^{*}$ Credit for $92: 113$ will count toward the finance emphasis only when 15:150 is also completed.
3. Personnel/Human Resources Management At least 12 hours selected from: Management: 15:105; 15:166; 15:168; 15:187.
Information Management: 18:119.
4. Production Maragement

Management: $15: 161 ; 15: 164 ; 15: 167$.
Three hours from -
Accounting: 12:131.
Management: 15:105; 15:110; 15:180; 15:181.

## General Business Concepts Minor

Required . ............................................ . . 21 hours
Accounting; 12:030.
Marketing: 13:152.
Management: 15:020; 15:080; 15:100; 15:153.
Economics: 92:024 or equivalent.

## Marketing

(School of Business)
S. Corbin, Head. E. Brooks, J. Burrow, D. Clayson, S. Diamond, K. Glynn, D. Haley, A. Pelham, R. Penn, J. Schibrowsky, N. Wilson, P. Winter.

Note: To graduate with a major in Marketing from the School of Business a student must complete 12:030, 12:031, 15:020, 15:070, 92:053, and 92:054 with at least a $C$ - in each course whether taken at UNI or an institution from which transfer credit is accepted; must earn a 2.2 cumulative grade point average at UNI; and must earn an overall 2.2 grade point average in 12:xxx, 13:xox, 15xox, 18:xxx, and 92:xxx courses taken at UNI.

## Marketing Major

Required business core . . . . . . . . . . . . . . . . . . . . . . . . . . 39 hours
Accounting: 12:030; 12:031.
Marketing: 13:152.
Management: 15:020; 15:070; 15:100; 15:151; 15:153; 15:154; 15:175.
Management: 15:080 or Information Management: 18:070.
Economics: 92:053; 92:054.
Required ............................................... . . 9 hours
Marketing: 13:140; 13:149; 13:151.
Electives: 6 hours from one of the specialization areas listed below 6 hours
Required marketing capstone:
Marketing: 13:169 or 13:180 or 13:181 . . . . . . . . . . 3 hours 57 hours
Specialization Areas:

1. Advertising Marketing 13:147; 13:171
2. Entrepreneurship Marketing: 13:172; 13:173
3. Marketing Management Marketing: 13:154; 13:175

## 4. Marheting Research

Marketing: 13:183; 13:185
5. Retalling Marketing: 13:141; 13:143
6. Sales

Marketing: 13:153; 13:171

## Chemistry - Marketing Major

This is an interdisciplinary major offered by the Department of Chemistry and the School of Business, and is under the jurisdiction of the Department of Chemistry. The Department of Chemistry is responsible for advising students enrolled in the major. Required for the major are 24-27 semester hours in chemistry and 27 hours of business for a total of 51-54 hours. See page 66 for complete details of the major program.

## Marketing Minor

Required 21 hours
Marketing: 13:140; 13:149; 13:151; $13: 152$.
Management: 15:020; 15:070.
Economics: 92:024 or 92:053.
Electives: 6 hours from one of the specializaton areas listed below 6 hours
Required marketing capstone 3 hours Marketing: $13: 169$ or $13: 180$ or $13: 181$

## Specialization Areas:

1. Advertising Marketing: 13:147; 13:171
2. Entrepreneurship Marketing:13:172; 13:173
3. Marketing Management Marketing: 13:154; 13:175
4. Marketing Research Marketing: 13:183; 13:185
5. Retailing Marketing: 13:141; 13:143
6. Sales

Marketing: 13:153; 13:171

Other requirements: In addition, to meet graduation requirements all Marketing minors must have a $C$ - or better in 15:020, 15:070, and 92:024 or 92:053, and a grade point average of 2.2 or better in the Marketing minor courses taken.

# Mathematics and Computer Science 

(College of Natural Sciences)

D. Duncan, Head. D. Baum, W. Beck, J. Bruha, R. Campbell, J. Cross, G. Dotseth, P. East, M. Fienup, M. Jacobson, A. Jensen, S. Kirmani, R. Lee, T. Liew, B. Litwiller, J. Longnecker, M. Millar, H. Myung, G. Nelson, M. Pegah, E. Rathmell, R. Ruchotzke, R. Rule, A. Schurrer, D. Thiessen, S. Walljasper, C. Wehner, M. Whalen, J. Wilkinson.

All of the undergraduate major and minor programs in the Department of Mathematics and Computer Science (except for the Computer Information Systems Major and the Computer Science Minor) require one or more of the courses: 80:060, 80:061, and 80:062 (Calculus I, II, and III). The course 80:046 (Elementary Analysis) is the prerequisite for 80:060, but may be bypassed by a student who did well in four years of high school college-preparatory mathematics. The course 80:040 (Basic Collegiate Mathematics) is essentially a service course but may also be used, if needed, as preparation for 80:046. Any questions concerning a student's proper initial placement in the 80:040, 80:046, 80:060, 80:061, and 80:062 sequence should be directed to the Department of Mathematics and Computer Science.

## Notes:

1. A student majoring in Mathematics, Computer Science, or Computer Information Systems who has a grade point average of less than 2.25 in all departmental courses used for that major may not apply to her/his major a departmental course in which a grade of less than $C$ - is earned.
2. Undergraduate students who have been admitted to the university provisionally because of non-satisfaction of the high school mathematics requirement may not enroll in any mathematics or computer science credit course before this requirement has been met.

## Computer Information Systems Major

| Required: |  |
| :---: | :---: |
| Mathematics:* 80:050; 80:072; 80:074 | 10 hours |
| Computer Science core:** 81:081; 81:082; 81:120; |  |
| 81:130; 81:135; 81:140 | 18 hours |
| Software engineering: 81:145; 81:150 | 6 hours |
| Required business foundations | 12 hours |
| Accounting: 12:030; 12:031. Marketing: 13:152. |  |
| Electives - three of the following for a total of nine |  |
| hours | 9 hours |
| Computer Science: 81:110; 81:111; 81:132; 81:178*** |  |

55 hours
*Some students should complete 80:040 and/or 80:046 before pursuing the courses in this section.
**Some students should complete 81:070 before pursuing courses in this section.
***Departmental permission required to use a specific 81:178 topic on this major.

## Computer Science Major

Required:
Mathematics:* 80:060; 80:061; 80:072 .......... 12 hours
Computer Science core:** 81:081; 81:082; 81:120; 81:130; 81:135; 81:140

18 hours
Software engineering: 81:145 or 81:150 .......... 3 hours
Electives in computer science:*** four of the following courses: 80:176; 80:177; 80:184; 80:187; 81:110; 81:111; 81:132; 81:145; 81:150; 81:155; 81:160;
81:178
12 hours
45 hours
*Some students should complete 80:040 and/or 80:046 before pursuing the courses in his section.
**Some students should complete 81:070 before pursuing courses in this section.
***No course may be counted for both elective and required credit.

## Mathematics Major - Plan A

Required:
Mathematics/Computer Science: completion of 80:062.
Electives: 20 hours from at least three of the following seven areas with two of these including two-semester sequences:

Algebra: 80:160; 80:161; 80:162; 80:193.
Analysis: 80:140; 80:141; 80:147; 80:148; 80:156.
Computer-related mathematics: 80:074; 80:176; 80:177; 80:184; 80:187.
Geometry: 80:165; 80:166; 80:189; 80:197.
Mathematical logic: 80:163; 80:169; 80:182; 80:183.
Probability and Statistics: 80:152; 80:174; 80:175.
Topology: 80:167; 80:168.

- Additional electives in mathematics or computer science to make a total of 20 hours.
The total hours will depend on a student's background and will vary from 20 to 43 hours.

None of the courses $80: 020,80: 030,80: 111,80: 112,80: 113,80: 131$, $80: 134,80: 139,80: 179,80: 190,80: 191,80: 192,81: 025,81: 070$, and $81: 179$, may be used to satisfy requirements on this program.

## Mathematics Major - Plan B - Computational Emphasis

## Required:

Mathematics/Computer Science: the completion of 80:062. 80:050; 80:149; 80:176; 80:177; 80:184; 81:070; 81:081.
Six hours from the following: 80:150, 80:152; 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 27-50 hours.

## Mathematics Major - Plan C

Required:
Mathematics/Computer Science: completion of 80:062. 80:140; 80:141; 80:160; 80:161; 80:167.
Electives: at least 3 additional courses to be chosen from the following areas:

Algebra: 80:162; 80:193.
Analysis: 80:147; 80:148; 80:149; 80:150; 80:156.
Geometry: 80:165; 80:166; 80:189; 80:197.
Mathematical logic: 80:163; 80:169; 80:182; 80:183. Probability and statistics: 80:152; 80:174; 80:175. Topology: 80:168.
The total program hours will depend on the student's background and will vary from 24-45 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 Major - Teaching

Required:
Mathematics/Computer Science: the completion of 80:062. 80:160; 80:165; 80:190; 81:081; 81:070 or 81:082.*
Electives: 12 additional hours chosen from the following seven areas, and must include courses in either algebra or geometry and at least one additional area:

Algebra: 80:161; 80:162; 80:193.
Analysis: 80:140; 80:141; 80:147; 80:148; 80:149; 80:156.
Computer-related mathematics: 80:074; 80:176; 80:177;
80:184;
80:187.
Geometry: 80:166; 80:189; 80:197.
Mathematical logic: 80:163; 80:169; 80:182; 80:183.
Probability and statistics: 80:152; 80:174; 80:175.
Topology: 80:167; 80:168.
The total program will depend upon the student's background and will vary from 28 to 51 hours.
*Students with a substantial background in BASIC should take 81:082.
For departmental approval to student teach, a student on the program must satisfy the university requirements to student teach and the following specific departmental requirements:

1. Must successfully complete 80:062; 80:160; 80:165; 80:190; 81:081; 81:070 or 81:082.
2. All grades in departmental courses to be applied to this program must be $C$ - or higher unless the student's grade point average is 2.25 or higher in all the departmental courses to be applied to this program.

## Computer Science Minor

Required: a minimum of 15 hours* from the
following
15 hours
Management: 15:181.
Mathematics/Computer Science: 80:050; 80:074; 80:149; 80:176; 80:177; 80:184; 80:187; 81:081; 81:082; 81:110; 81:111; 81:120; 81:130; 81:132; 81:135; 81:140; 81:145; 81:150; 81:155; 81:160; 81:178.**
*At least 12 of these 15 hours must carry a 15 or 81 prefix ( $15: x 00$ or 81:0xa).
${ }^{* *}$ May be repeated once for credit on a different topic.

## Computer Science Minor - Teaching

Required ....................................... . 19 hours
Mathematics: 80:074.
Computer Science: 81:081; 81:082; 81:130; 81:135; 81:190.
Electives from the following courses ............... 6 hours
Computer Science: 81:025; 81:110; 81:111; 81:120; 81:140; 81:145; 81:160; 81:178.

25 hours

## Mathematics Minor - Teaching

A minimum of 24 hours is required as follows:
Mathematics/Computer Science: 80:046;* 80:060; 80:160 and/or 80:165; 80:190; 81:070 and/or 81:081**.

17-24 hours
Electives from: 80:061; 80:062; 80:063; 80:072; 80:080; 80:144; 80:155; 80:180; 80:181; the courses listed in the seven areas of the Mathematics Major - Teaching to make a minimum total of 24 hours 0.7 hours 24 hours*
*A well-prepared student may be exempted from 80:046 if departmental approval is secured; this exemption reduces the minimum minor program hours from 24 to 20.
**Students with a substantial knowledge of BASIC should take 81:081.

## Mathematics Minor

A minimum of 20 hours is required as follows:
Mathematics: $80: 060$............................... . 4 hours
Electives from - 80:061; 80:062; 80:063; 80:072; 80:080; 80:120; 80:144; 80:149; 80:155; 80:180; 80:181; the courses listed in the seven areas of electives under the Mathematics Major (Plan A) to make a minimum total of 20 hours ......... 16 hours 20 hours

## Mathematics Subject Field - Middle

 School/Junior High School Education MajorRequired:
Mathematics: 80:030; 80:048 or 80:060; 80:111;* 80:112; 80:113 or 80:144; 80:072; 80:134; 80:191 ..................................... 25 hours
Computer Science: $81: 070$ or $81: 081^{* *} \ldots \ldots .$. ...... 3 hours
28 hours
*Departmental permission to use 80:046 instead of 80:111 will be granted when conditions warrant.
**Students with a substantial knowledge of BASIC should take 81:081.
(See Department of Curriculum and Instruction, page 70.)

# Military Science 

R. Lauson, Head. G. Adam, D. Blum, K. Brown, L. Cassi.

The Department of Military Science administers the Army Reserve Officers' Training Corps (AROTC) programs at the University of Northern Iowa. Credit earned in the department counts as general elective credit toward baccalaureate degree requirements.

The ROTC Basic Course is designed for freshman and sophomore students. One three-hour course and three one-hour courses are offered and provide basic knowledge about the military and its role in society as well as a review of basic principles of military strategy, tactics, and elementary skills. The Basic Course is open to all students and there is no military obligation.

The Advanced Course, or final four semesters of the program, require that a student take four three-hour courses and attend a sixweek advanced camp during the summer between the junior and senior years. Entry into the Advanced Course is competitive and entails a commitment to serve in the Army National Guard, U.S. Army Reserves or Regular Army as an officer. The course work is designed to provide a preparation for the duties and responsibilities of a commissioned officer and to address the dynamics of organizational leadership from the smallgroup level to large and diversified organizations. A university course in modern history and one in the social sciences are also required. Students in the Advanced program receive a subsistence allowance of $\$ 100$ per month and are also eligible to compete for three-, two-, and one-year ROTC scholarships.

Students who successfully complete the Advanced Course receive a commission as a second lieutenant in the U.S. Army and serve either on active duty or with the Army National Guard or the U.S. Army Reserve.

Although the AROTC curriculum normally spans four years, it can be completed in as few as two years by qualified students with departmental approval.
Field Training - Prior to commissioning, all cadets must attend a sixweek, paid, advanced training camp at Fort Lewis, Washington. This training takes place between the student's junior and senior years. Selected students may also participate in active Army training programs such as Ranger, Air Assault, Northern Warfare, and Airborne.
Advanced Placement - Students with prior military training or experience can receive full credit toward commissioning (not graduation) for the first two years of AROTC and are not required to attend field training prior to entering the program. They must, however, complete the advanced training camp prior to commissioning.
Basic Camp-Prerequisite requirements for the Advanced Course may be met by students without prior military training or experience through successful completion of the six-week ROTC basic camp at Fort Knox, Kentucky, during the summer. Students are paid approximately $\$ 650$ plus travel expenses for this training and they can also apply for a two-year ROTC scholarship. Attendance at this camp carries no military obligation.
Financial Assistance - AROTC Scholarships providing tuition, books, laboratory fees, and a tax-free allowance of $\$ 100$ per month are available for four-, three- and two-year periods. Scholarship recipients who successfully complete the program could be offered a commission as a Second Lieutenant in the U.S. Army Reserve, National Guard or Active Army.

All cadets in the last two years of AROTC receive $\$ 100$ per month as a tax-free allowance. Students attending field training are paid while there and receive travel expenses. Uniforms and books for all classes taught by the Military Science Department are furnished, and a tax-free uniform allowance is provided for all commissionees.

Veterans continue to draw any GI Bill benefits to which they are entitled. Non-scholarship Advanced Course students may participate in the Simultaneous Membership Program and the New GI Bill with the U.S. Army Reserve or National Guard. SMP cadets can earn approximately $\$ 3,900$ a year as RO'TC cadets and officer-trainees in the National Guard or Army Reserve.
Educational Delay - Cadets may request an educational delay to postpone entry into the service on active duty until after completion of an advanced degree or professional training program.

## Modern Languages

(College of Humanities and Fine Arts)
F. König, Head. R. Bubser, J. Dubois, A. Franco, D. Hawley, E. Jamosky, J. Koppensteiner, R. Krueger, M. Lukacher, R. Muñoz, S. Nodarse, M. Oates, K. Odwarka, H. Parker, C. Rosenthal, J. Schwartz, N. Vernon, A. Walther, G. Zucker.

Note: Major programs available include French, German, Spanish, and the Modern Languages Subject Field for the Middle School/Junior High School Major. Minors include French, German, Russian, and Spanish. Courses are offered in all of the above languages, plus Chinese and Portuguese.

Three interdepartmental programs are offered cooperatively with the Department of English Language and Literature and are listed on page 75. These programs are TESOL/Modern Language Major - Teaching, English and Modern Language Combined Major, and the Comparative Literature Minor.

The European Studies Major is an interdisciplinary program offered jointly by the College of Humanities and Fine Arts and the College of Social and Behavioral Sciences and is under the jurisdiction of the heads of the Department of Modern Languages and the Department of History.

A student who has been enrolled previously in a foreign language at this institution will be advised by his or her instructor as to the sequence of succeeding courses.

A student who has never had a foreign language should enroll in the Elementary I course.

The previous background and facility in acquiring basic skills of the individual student may necessitate taking additional work in lower division courses which are not specified in the major.

The total program hours will depend on the student's background and will vary from 23 to 43 hours.

Certification to teach a modern language in elementary school can be achieved by majoring in Elementary Education and taking the Teaching minor in the relevant language.

## European Studies Major

This is an interdisciplinary program offered jointly by the College of Social and Behavioral Sciences and the College of Humanities and Fine Arts, and is under the jurisdiction of the heads of the Departments of History and Modern Languages.

To be elected as a second major with a major in history or a major in a foreign language (French, German, Spanish) or Russian Area Studies.


47 hours
*With permission, students emphasizing the British Isles may substitute Gaelic, Old, or Middle English for this requirement.

## French Major

Required: a minimum of 30 semester hours in French in courses more advanced than 72:002, including 72:072 and 72:101, of which at least 20 hours must be in courses numbered 100 or higher, and including at least one course from each of the following groups:

French:

```
a. 72:124; 72:125
b. 72:108; 72:180; 72:185
c. 72:114; 72:118; 72:128; 72:131; 72:135; 72:144; 72:146
```


## French Major - Teaching

Required: a minimum of 33 semester hours as follows: Languages: 70:190
French: a minimum of 30 semester hours in French in courses more advanced than 72:002, including 72:072 and 72:101, of which at least 20 hours must be in courses numbered 100 or higher and including at least one course from each of the following groups:
a. 72:124; 72:125
b. 72:108; 72:180; 72:185
c. 72:114; 72:118; 72:128; 72:131; 72:135; 72:144; 72:146

## French Minor

## Required:

French: 72:101 or 72:103
3 hours 16 hours in French in courses more advanced than 72:002 16 hours 19 hours

## French Minor - Teaching

Required:

$$
\begin{aligned}
& \text { Languages: } 70: 190 ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~ . ~
\end{aligned} \text { h hours } \quad 3 \text { hours }
$$

## German Major

Required: a minimum of 30 semester hours in German in courses more advanced than 74:002, including 74:071, 74:101, 74:161 (for non-native speakers of German only, or 74:180 may be substituted) of which at least 20 hours must be in courses numbered 100 or higher, and including at least one course from each of the following groups:

German:
a. 74:123; 74:150
b. 74:107; 74:160; 74:180; 74:185
c. 74:105; 74:114; 74:116; 74:127; 74:128; 74:143; 74:147

## German Major - Teaching

Required: a minimum of 33 semester hours as follows:
Languages: 70:190
German: a minimum of 30 semester hours in German in courses more advanced than 74:002, including 74:071; 74:101, 74:161 (for non-native speakers of German only, or 74:180 may be substituted), of which at least 20 hours must be in courses numbered 100 or higher, and including at least one course from each of the following groups:

$$
\text { a. } 74: 123 ; 74: 150
$$

b. 74:107; 74:160, 74:180; 74:185
c. 74:105, 74:114; 74:116; 74:127; 74:128; 74:143; 74:147

## German Minor

Required:


## German Minor - Teaching

Required:
Languages: 70:190 . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
German: 74:101 ................................... . . 3 hours 16 hours in German in courses more advanced than 74:002 16 hours 22 hours

## Russian Minor

Required:
Russian: 16 hours in courses in Russian more
advanced than $77: 002 . . . . . . . . . . . . . . . . .$. . 16 hours

## Russian Minor - Teaching

Required:

Languages: 70:190

3 hours

Russian: 13 hours in courses in Russian more
advanced than 77:002 .
13 hours
16 hours

## Spanish Major

Required: a minimum of 30 semester hours in Spanish in courses more advanced than $78: 002$, including $78: 071,78: 072 ; 78: 101$, of which at least 20 hours must be in courses numbered 100 or higher, and including at least one course from each of the following groups:

## Spanish:

a. 78:123; 78:140; 78:152
b. 78:107; 78:180; 78:185; 78:195
c. 78:105; 78:112;78:118; 78:130; 78:134; 78:139; 78:142; 78:144

## Spanish Major - Teaching

Required: a minimum of 33 semester hours as follows:
Languages: 70:190
Spanish: a minimum of 30 semester hours in Spanish in courses more advanced than 78:002, including 78:071, 78:072, and 78:101, of which at least 20 hours must be in courses numbered 100 or higher, and including at least one course from each of the following groups:
a. 78:123; 78:140; 78:152
b. 78:107; 78:180; 78:185; 78:195
c. $78: 105 ; 78: 112 ; 78: 118 ; 78: 130 ; 78: 134 ; 78: 139 ; 78: 142 ; 78: 144$

## Spanish Minor

Required:


Spanish Minor - Teaching


## Modern Language Subject Field - Middle School/Junior High School Education Major**

|  |  |
| :---: | :---: |
| Required: |  |
| Languages: 70:190 | 3 hours |
| French: 72:051 and 72:061 | 5 hours |
| 72:072; 72:101; 72:103* or 72:124 or 72:125; |  |
| plus electives | 16 hours |
|  | 24 hours |

*If $72: 103$ is elected, the student is strongly advised to take one of the two courses in French Civilization.

[^1]```
Spanish -
Required:
    Languages: 70:190 . . . . . . . . . . . . . . . . . . . . . . }3\mathrm{ hours
    Spanish: 78:051 and 78:061; 78:052 and 78:062.... 10 hours
        78:101; 78:103; 78:123 or 78:140; plus two-hour
        course in bilingual pre-practicum or bilingual
        practicum.
        11 hours
        24 hours
**See Department of Curriculum and Instruction, page 70.
```


## School of Music

## (College of Humanities and Fine Arts)

R. D. Rass, Director. H. Aibel, T. Barry, C. Becker, M. Beckman, B. Book, S. Brown, D. Buch, J. Carpenter, B. Chidester, G. Cowen, A. Dennis, W. Ferrara, J. Gault, J. Graham, R. Hammill, J. Hansen, R. Hogancamp, A. Holstad, M. Hohik, M. Jernigan, D. Johnson, J. Johnson, R. Johnson, M. Kratzenstein, K. Laurence, A. Matheson, M. Merrion, P. Michaelides, S. Reuss, W. Shepherd, D. Smalley, T. Tritle, S. Ward, R. Washut, D. Wendt, R. Williams.

The School 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 Performance Major Theory - Composition Major
Bachelor of Arts - Music Major Audio Recording Technology Minor Jazz Studies Minor Music Minor Music Minor - Teaching

## Bachelor of Fine Arts-Music Theatre Major

The Music Education major prepares the student for a teaching career and provides certification in music for grades K -12. The Performance and Theorr-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 Theatre major under the Bachelor of Fine Arts degree is an interdisciplinary program combining courses from the School of Music and the Department of Communication and Theatre Arts. Graduates of this program could qualify for professional careers in music theatre, and upon completion of the requirements for the Music Education major under the Bachelor of Music degree, could qualify for a directorial position in the public schools.

## General Requirements for Undergraduate Majors

Music majors on all degree programs must choose an area of applied music (54:oxx) for specialization and must meet the proficiency standards of the School of Music.
Auditions: Admission to the School of Music requires successful completion of an audition in the main performance area.
Plano Proficiency: Required of all majors. All freshmen will enroll in group piano class or applied piano continuously (semester by semester) until piano proficiency has been passed. For Music Education majors, requirements must be completed prior to student teaching.

Voice or Instrumental Proficiency: Required of all Music Education keyboard majors.
Forelgn language: Ten (10) semester hours of credit in a foreign language are 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 Ortanizations: 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 Director of the School of Music.

- Wind and percussion students will elect either band or orchestra, and are required to participate in Marching Band for two semesters.
- String players will elect the orchestra.
- Voice majors will be assigned to an appropriate choral group.
- Keyboard majors will elect a large organizationfor their participation requirement.


## Bachelor of Music Degree Programs

## Music Education Major

| Required: |  |
| :---: | :---: |
| Applied Music ( 54 :xox) including 3 hours of 100 -level work in major area | 15 hours |
| Music Theory: 58:011; 58:012; 58:013; 58:014; |  |
| 58:015; 58:016; 58:017; 58:018 | 16 hours |
| 58:110 (Analysis of Music Styles) | 3 hours |
| Music Literature: 59:010; 59:011 | 6 hours |
| Music Techniques: 56:020 | 2 hours |
| Music Education and Methods: 57:050; 57:141 | 4 hours |
| Ensembles (53xax) | 6 hours |
| Plus a specialization (A, B, or C) listed below (see |  |
|  |  |

Note: If an optional specialization (D, E, or F) is chosen, the specialization hours will be 20-23 hours and total requirements for graduation will range from 135 to 138 hours.

```
Specializations -
A. Choral Specialimation:
    Music Techniques/Music Education and Methods:
        56:022; 56:030; 57:130; 57:165 . . . . . . . . . . . . . 9 hours
    Electives from: 56:xax, 57:1xx, 58:1xx, 59:1xx ..... 4 hours
        13 hours
B. Instrumental Specialization:
    Music Techniques/Music Education and Methods:
        56:021; 57:010; 57:155
        11 hours
    Electives from: 56:xox, 57:18x, 58:1xx, 59:1xx ..... 2 hours
        13 hours
C. Elementary/General Specialization:
    Music Techniques/Music Education and Methods:
        56:021 or 56:022; 57:155 or 57:165. ........... 6 hours
        Applied Music: 54:049 (Students whose applied area
        is voice will substitute applied piano)*
    2 hours
    Electives from the following courses.
    5 hours
    Music Techniques: 56:030; 56:110. Music Education
        and Methods: 57:010 (1-3 hrs.); 57:130; 57:143;
        57:144; 57:145; 57:190.
```

Optional Specializations -
D. Composite Specialization (Choral and Instrumental):Music Techniques/Music Education and Methods:
56:021; 56:022; 56:030; 57:010 (5 hrs.); 57:130;57:155; 57:16520 hours
Applied Music: 54:049 (Students whose applied area is voice will substitute applied piano) 2 hours22 hours
E. Jazz Specialization:
Music Techniques: 56:021; 56:152 (1 hour per semester). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6 hours
Music Education and Methods: 57:010; 57:155 ..... 8 hours
Music Theory: 58:127; 58:128 ..... 4 hours
Music Literature: 59:050 ..... 3 hours21 hours
F. Special Education Certificate:
Educational Psychology: 20:155
Special Education: 22:150
Music Education and Methods: 57:190; 57:191;57:19512 hours
Plus: the required courses from either specializationA, B, or C, for a total of.8-11 hours20-23 hours
Additional Major Requirements:

1. For all specializations (A-F): senior recital (half recital).
2. For specialization E only: two semesters of jazz combo.
3. For specialization $F$ only: guitar proficiency.
4. For students whose applied area is voice: $56: 030$ is required.
5. Keyboard composite majors must declare either instrumental orvocal emphasis. Instrumental composite majors will participate in anappropriate choral organization for a minimum of two semesters;voice composite majors will participate in an appropriate instrumen-tal organization for a minimum of two semesters (one semester ofwhich must be Marching Band).

## Performance Major

Areas: voice, piano, organ, band-orchestral instruments.

## Required:

Applied Music (54:xxa) . . . . . . . . . . . . . . . . . . . . . . . 28 hours
Music Theory: 58:011; 58:012; 58:013; 58:014; 58:015; 58:016; 58:017; 58:018; 58:110; plus electives in theory for a total of. . . . . . . . . . . . . 22 hours
Music Literature: including 59:010 and 59:011 ... . 12 hours
Music Techniques: 56:020; 56:021 or 56:022 ...... 5 hours
Ensembles (53:xox) . . . . . . . . . . . . . . . . . . . . . . . . . 6 hours
Electives in music . . . . . . . . . . . . . . . . . . . . . . . . . 7 hours
80 hours

## Additional Requirements:

1. Junior recital (half recital).
2. Senior recital (full recital).
3. Voice majors will elect $56: 030$ and $56: 031$.

Note: Performance majors who desire teaching certification can complete the music methods requirements under the Music Education major (page 47) and the Professional Sequence (page 45).
*Applied Voice, 2 hours, satisfies voice proficiency.

## Theory-Composition Major



## Music Major



## Music Minor



Departmental audition requirements apply to this minor.

## Music Minor - Teaching

## Required:

Music Organizations and Ensembles (53:xxx) . . . . . . 2 hours
Applied Music (54:xxx) . . . . . . . . . . . . . . . . . . . . . . . . 4 hours
Music Techniques: 56:020 . ....................... . 2 hours
Music Education and Methods: 57:050; 57:141 .... 4 hours
Music Theory: 58:011; 58:012; 58:015; 58:016 ..... 8 hours
Emphasis (choose one of two below) ............. 6 hours
26 hours

1) Instrumental Emphasis:

Music education and methods: 57:010; 57:155
2) General Music/Choral Emphasis:

Music education and methods: 57:165
Music electives - $56: \mathrm{xxx}$ or $57: \times x \mathrm{x}$ ( 3 hours)
Departmental audition requirements apply to this minor.
Note: Students on this minor must satisfy Level Il of piano proficiency requirements.

## Bachelor of Fine Arts Degree Program

## Music Theatre Major

This major is an interdisciplinary program involving the School of Music and Speech-Theatre of the Department of Communication and Theatre Arts.
Music Core:
Applied Music ( $54: \mathrm{xxx}$ ) . . . . . . . . . . . . . . . . . . . . . . . 16 hours
Music Theory: 58:011; 58:012; 58:013; 58:015;
58:016; 58:017 ........................... 12 hours
Music Literature: 59:010; 59:011; 59:129 . . . . . . . . . 9 hours
Music Techniques: 56:020 . . . . . . . . . . . . . . . . . . . . 2 hours
Music Theatre and/or Opera Theatre: 56:130; 56:131

6 hours
Music Organizations and Ensembles (53:xxx) . . . . . . 4 hours
Music Specialization . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 hours
Choose at least 12 hours from one of the following areas:
Voice
Music Techniques: 56:030; 56:031; 56:130.
Music Education and Methods: 57:130.
Music Literature: 59:120; 59:130.
Conducting
Music Techniques: 56:021; 56:022; 56:121; 56:122; 56:130.
Music Literature: 59:130.
Theatre Core
17 hours
Physical Education: 42:035.
Communication and Theatre Arts: 50:024; 50:027; 50:050; 50:053; 50:080.
Theatre Specialization . . . . . . . . . . . . . . . . . . . . . . . . . 12 hours
Choose at least 12 hours from one of the following areas:

90 hours
Acting/Directing: Physical Education: 42:035. Communication and Theatre Arts: 50:010; $50: 021 ; 50: 022 ; 50: 025 ; 50: 031 ; 50: 052$; 50:055; 50:082; $50: 110 ; 50: 122 ; 50: 126 ; 50: 130 ; 50: 134 ; 50: 147$; 50:148; 50:149; 50:152; 50:181; 50:182.
Technical Theatre: Communication and Theatre Arts: 50:010; 50:045; $50: 050 ; 50: 051 ; 50: 052 ; 50: 082 ; 50: 107 ; 50: 110 ; 50: 147 ; 50: 151 ;$ 50:156; 50:157; 50:166; 50:167; 50:180; 50:190.
Dance: Physical Education: 42:A07; 42:A08; 42:A09; 42:A10; 42:All; 42:A12; 42:A13; 42:031; 42:032; 42:035; 42:135; 42:136. Communication and Theatre Arts: $50: 010 ; 50: 110 ; 50: 133 ; 50: 182$.

Additional Requirements: 1) keyboard proficiency; 2) voice proficiency (for non-voice majors); and 3) recital/project.
Note: To qualify for certification to teach, see page 47 for certification requirements under the Bachelor of Music degree. Further details may be obtained from the School of Music.

## Philosophy and Religion

(College of Humanities and Fine Arts)
S. Thakur, Head. E. Amend, D. Crounfield, F. Hallberg, D. Ingram, D. Morgan, M. Reineke, J. Robinson, T. Thompson.

## Philosophy Major

| Required: |  |
| :---: | :---: |
| Philosophy: |  |
| Three of the following-65:100; 65:101; 65:103; |  |
| 65:104. | 9 hours |
| 65:119, 65:142; 65:145; 65:150 | 12 hours |
| Electives in philosophy - 65:x0x (may include |  |
| 64:139) | 15 hours |
|  | 36 hours |

## Philosophy and Religion Major

| Required: |  |
| :---: | :---: |
| Religion: 64:124. | 3 hours |
| Philosophy: 65:113; 65:145 | 6 hours |
| Electives* | 27 hours |

*At least six (6) hours shall be in philosophy (65:xcx) and at least six (6) hours shall be in religion ( $64: 30 x$ ). The remaining 15 hours may be in either philosophy or religion courses.

## Religion Major

Required:

| Religio | 3 hours |
| :---: | :---: |
| Three of the following: 64:111; 64:112; 64:114; 64:115; 64:135; 64:141; 64:142 | 9 hours |
| Two of the following: 64:130; 64:132; |  |
| 64:134 | 6 hours |
| Electives in religion - 64:00x (may include 65:113; 68:168; 68:194) | 18 hours |

## Pre-Theological Emphasis

Students preparing for ministry or for graduate professional education in theology at a seminary or divinity school are advised to consult with the pre-theological adviser.

The Department of Philosophy and Religion, as part of a state university, does not promote any specific religion or point of view, but will provide academic preparation for students from any religious tradition or orientation. The following pre-theological curriculum has been based on the recommendations of the American Association of Theological Schools.

All pre-theological students should take the following courses, whether as a part of the Religion major or as a pre-theological Religion minor

Required:
Religion: 64:124; 64:141; 64:142 ............... 9 hours
Two of the following: 64:111; 64:112; 64:114; 64:115 6 hours
Philosophy/Religion:
One course from each of the following three groups 3 hours

1) $64: 117 ; 64: 121 ; 64: 165$
2) $64: 130 ; 64: 132 ; 64: 134$
3) $64: 126 ; 64: 160 ; 65: 113 ; 65: 152 ; 65: 153$

## 24 hours

Pre-theological students majoring in Religion should minor in English, history, psychology, or sociology, or in another field approved by the pre-theological adviser. Students who major in philosophy, English, history, psychology, or sociology, should complete the above courses as a pre-theological Religion minor. Other majors may be appropriate for individual interests and vocational plans, and should be selected in consultation with the pre-theological adviser.

To satisfy the general admission requirements of graduate programs, it is recommended that pre-theological students take both 68:021 and 68:022, and laboratory courses in two basic sciences.

Pre-theological students must be fluent in written and spoken English and should acquire a basic competence in one modern language. If at all possible, they should begin the study of Greek in college.

Students are encouraged to take two (2) semesters of the History of Philosophy sequence: $65: 100 ; 65: 101 ; 65: 103 ; 65: 104$; preferably including 65:100.

The UNI School of Business and the Department of Philosophy and Religion jointly offer a five-year program in three combinations leading to a Master of Business Administration degree (M.B.A.). They are Philosophy/M.B.A., Religion/M.B.A., and Philosophy and Religion/ M.B.A. This five-year program is ideal for students who want a sound foundation in the liberal arts and an education in business leadership. Students should declare their intention to enroll in this program no later than the middle of their sophomore year.

## Philosophy Minor

Required:
Philosophy: 65:021; two courses in history of philosophy series; and 12 hours of electives in philosophy.

21 hours

## Religion Minor

Required:
Religion 64:124; 64:141 or 64:142; and 15 hours of electives in religion, which may include 65:113

21 hours

## Physics

(College of Natural Sciences)
C. Intemann, Head. G. Crockett, R. Engardt, R. Hanson, V. Jensen, H. Macomber, D. Olson, R. Unruh, F. Vimain, R. T. Ward.

The Department of Physics offers major programs in two baccalaureate areas: the Bachelor of Science and the Bachelor of Arts. The Physics Major leading to the Bachelor of Science degree is recommended for students who wish to prepare for graduate study in physics, engineering, and other sciences such as study in geophysics, astronomy, biophysics, and medical physics.

The Applied Physics Major, leading to the Bachelor of Science degree, is especially suitable for students seeking industrial or other applied employment after the B.S. degree. It could also serve as a background for graduate study in some applied science or engineering areas.

The BA. Physics Major is for students (including double majors) desiring a broad background in science or who are taking a substantial amount of work in other areas. With appropriate choice of electives the BA. Physics Major meets the needs of pre-medical and pre-law students and students planning careers in science-related administration, business or technical writing.

The B.A. Physics Teaching Major program is for students preparing to be physics teachers at the secondary school level.

## Bachelor of Science Degree Programs

- 130 semester hours


## Applied Physics Major

Required:
Physics: 88:060 (if 88:054 is not taken for credit); 88:061 (if 88:056 is not taken for credit); 88:110; 88:130; 88:131; 88:136; 88:137; 88:138; 88:140; 88:145; 88:152; 88:154; 88:184

33-35 hours
Electives in physics - 100 -level (excluding 88:193) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 hours
Mathematics: 80:060; 80:061; 80:063; 80:149 ...... 15 hours
Computer Science: 81:081......................... . . 3 hours
Chemistry: 86:044 and 86:048, or 86:070 ........ . 5-8 hours 60-65 hours
Notes: Applied Physics majors are strongly encouraged to complete minors in at least two of the following areas: computer science, chemistry, earth science, industrial technology, and business.
Internship in Applied Physics $(88: 184)$ should be taken during the junior or senior year. It may be taken under the Cooperative Education Program. Successful completion of the internship requires both a written and oral report.

## Physics Major

| Required: |  |
| :---: | :---: |
| Physics: 88:060 (if 88:054 is not taken for credit); |  |
| 88:061 (if 88:056 is not taken for credit); 88:130; |  |
| 88:131; 88:136; 88:137; 88:138; 88:166; 88:167; |  |
| 88:172; 88:180 (1 hr.) | 29-31 hours |
| Electives in physics - 100-level (excluding |  |
| 88:193) | 8 hours |
| Mathematics: 80:060; 80:061; 80:062 or 80:063; |  |
| 80:149 | 15 hours |
| Computer Science: 81:081 | 3 hours |
| Chemistry: 86:044 and 86:048, or 86:070 | 5-8 hours |
|  | 60-65 hours |

Notes: Students planning graduate study in physics or engineering are advised to include in their programs as many as possible of the advanced physics courses with associated laboratories. More than the required amount of mathematics is encouraged.
Undergraduate research ( $88: 180$ ) should normally be taken during the senior year. Successful completion of the research experience requires both a written and oral report.


## Bachelor of Arts Degree Programs

## Physics Major

Required:
Physics: 88:060 (if 88:054 is not taken for credit); 88:061 (if 88:056 is not taken for credit); 88:130; 88:131; 88:137; 88:138

13-15 hours
Electives in physics: 100-level courses (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 . .

13 hours
Mathematics: 80:060; 80:061 ..................... 8 hours
Electives in mathematics beyond 80:061 ......... 4 hours
Electives from College of Natural Sciences (excluding $82: 020,82: 031$, mathematics below $80: 060$, and physics below $88: 130$ ) 14 hours 52-54 hours
Physics Major - Teaching

| Required: |  |
| :---: | :---: |
| Mathematics: 80:060; 80:061 | 8 hours |
| Science and Science Education: 82:190 | 2 hour |
| Physics: 88:054; 88:056; 88:130; 88:131; 88:137; 88:138; 88:193 | 23 hours |
| Electives: 9 hours in physics (at least 7 hours in 100-level courses) | 9 hour |
| Electives: non-physics courses from the College of Natural Sciences (excluding 82:020 and mathematics below $80: 060$ ) $\qquad$ | 6 hours |

48 hours
Sufficient work including current curricula should be taken for certification approval in a second area. Common teaching combinations are physics-chemistry or physics-mathematics.

## Physics Minor

Required:
Electives in physics: 100-level courses (excluding 88:193)

16 hours

## Physics Minor - Teaching

Required:

| Electives in physics: 100 -level courses (including no more than four hours from $88: 152$ and $88: 154$ ). $\qquad$ |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  |

## Political Science

(College of Social and Behavioral Sciences)
R. L. Rass, Head. L. Alberts, D. Grady, R. Hays, M. Krogmann, N. Richmond, M. Sonnleilner, D. Vajpeyi, F. Winter.

## Political Science Major

Required:
Political Science: 94:011; 94:014; 94:124; 94:131 or 94:134

12 hours One of the following: 94:160; 94:161; 94:166 . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours One of the following: 94:135; 94:149; 94:164; 94:165; 94:168; 94:169; 94:170; 94:183 3 hours
Electives in political science
15 hours
Economics: 92:053 ..... 3 hours
Sociology: 98:058 ..... 3 hours

No minor is required.

## Political Science Major - Teaching

Required:
Political Science: 94:011; 94:014; 94:124; 94:131 or 94:134

12 hours One of the following: 94:160; 94:161; 94:166 ................................... 3 hours One of the following: 94:135; 94:149; 94:164; 94:165; 94:168; 94:169; 94:170; 94:183

3 hours
Electives in political science ..................... 8 hours
Social Science: $90: 190$. . . . . . . . . . . . . . . . . . . . . . 3 hours
Economics: 92:053. . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Sociology: 98:058 3 hours

A minor is required in one of the following: history, sociology, economics, or geography.
*Not more than nine hours of political science taken within the International Affairs Minor may also be counted for credit on a Political Science Major or Minor (teaching or non-teaching).

## Public Administration Major

A student declaring a major in Public Administration will be required to have sophomore standing and a minimum g.p.a. of 2.5 for all courses whether taken at UNI or transferred from other institutions. To graduate with a major in Public Administration a student must have a cumulative g.p.a. of 2.5 in course work taken at UNI in the Public Administration Major.

## Required:

Political Science: prerequisite to core - 94:014; 94:148 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6 hours Core: 94:153; 94:172; 94:173 or 94:134;
94:174.......................................... . . . . 12 hours 94:176 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours Internship: 94:180; 94:181 (4-8 hrs.). . . . . . . . . . 6-10 hours
Computer Science: 81:070 or Social Science: 90:070 . . . . . . . . . . . . . . . . . . . . 3 hours
Sociology: 98:080 . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Fifteen (15) hours from one of six areas of concentration 15 hours
48-52 hours
Area 1 - General Administration - 15 hours from:
Management: 15:153.
Social Work: 45:144; 45:172; 45:196.
Communication and Theatre Arts: 50:077.
Economics: 92:053; 92:054; 92:117.
Political Science: 94:131; 94:132; 94:149; 94:171; 94:189 (1-3 hours).
Area 2 - State and Community Planning - 15 hours from:
Political Science: 94:131; 94:132; 94:171; 94:189 (1-3 hrs.).
Geography: 97:060; 97:132; 97:135; 97:136; 97:142.
Sociology: 98:110; 98:148.
Home Economics: 31:163.
History: 96:124.
Social Work: 45:196.
Area 3 - Public Law - 15 hours from:
Management: 15:105.
Political Science: 94:136;94:140;94:141;94:142;94:146;94:147; 94:189 (1-3 hrs.).
Area 4 - Public Personnel - 15 hours from:
Management: 15:153; 15:165; 15:168; 15:187.
Home Economics: 31:051; 31:055.
Psychology: 40:157; 40:158; 40:160.
Economics: 92:116.
Political Science: 94:189 (1-3 hrs.).
Geography: 97:150.
Sociology: 98:114.
Social Work: 45:163 or
Sociology: 98:130.

Area 5 - Public Services - 15 hours from:
Home Economics: 31:055; 31:153.
Psychology: 40:160.
Social Work: 45:040; 45:121; 45:144; 45:173; 45:175; 45:196.
Political Science: 94:132; 94:140; 94:189 (1-3 hrs.).
Ceography: 97:132; 97:142; 97:185.
Sociology: 98:060; 98:110.
Anthropology: 99:166.
Social Work: 45:163 or
Sociology: 98:130.
Area 6 - Public Policy - 15 hours from:
Home Economics: 31:163.
Social Work: 45:040; 45:121; 45:144; 45:173; 45:175.
Political Science: 94:134 or* 94:173; 94:140; 94:152; 94:154; 94:155; 94:189 (1-3 hrs.).
Geography: 97:120; 97:125.
Sociology: 98:120; 98:125; 98:135; 98:148.
*Course selected for core may not be counted in this concentration.

## International Affairs Minor

Required:
Political Science: 94:124; 94:125; 94:127; 94:128... 12 hours
At least one of the following . . . . . . . . . . . . . . . . . . . . . 3 hours
Economics: 92:136; 92:175
Political Science: 94:143; 94:145
At least one of the following. . . . . . . . . . . . . . . . . . . . . . 3 hours
Political Science: 94:135; 94:164; 94:165; 94:168; 94:169
At least one of the following*. . . . . . . . . . . . . . . . . . . . . 3 hours
Economics: 92:137; 92:138; 92:143.
Political Science: 94:144; 94:170; 94:189; 94:198.
History: 96:138; 96:157; 96:168; 96:170; 96:172; 96:174; 96:175; 96:177; 96:180; 96:187.
Geography: 97:150; 97:170
*This requirement may also be met by successful completion of four semesters at the college level of any foreign language, with at least 2.0 g.p.a. or by demonstration of an equivalent competency level.

An additional requirement for political science majors is that at least nine hours of the 21 hours required for an International Affairs minor be completed from courses in the above list of categories outside the field of political science. The minor would be 24-27 hours.

Not more than nine semester hours of political science taken within this International Affairs Minor may be counted for credit on both this minor and the Political Science (liberal arts) and Political Science Teaching majors and minors.

This minor does not carry certification to teach nor does it meet the requirements for a minor for the Political Science Major - Teaching.

Students are encouraged to consult with a political science adviser.

## Political Science Minor

```
Required:
    Political Science: 94:011; 94:014; 94:124 .......... 9 hours
        One of the following: 94:160;94:161;94:166 ... }3\mathrm{ hours
        One of the following: 94:135;94:149;94:164;
                94:165; 94:168; 94:169; 94:170; 94:183 ..... 3 hours
    Electives in political science
        3 hours
                18 hours*
```


## Political Science Minor - Teaching

Required:
Political Science: 94:011; 94:014; 94:124; 94:131 or
94:134 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 hours
One of the following: 94:160; 94:161; 94:166 . . . 3 hours
One of the following: 94:135; 94:149; 94:164;
94:165; 94:168; 94:169; 94:170; 94:183
3 hours
Electives in political science . . . . . . . . . . . . . . . . . 1-3 hours
19-21 hours*
*Not more than nine hours of political science taken within the International Affairs Minor may also be counted for credit on a Political Science Major or Minor (teaching or non-teaching).

## Psychology

(College of Social and Behavioral Sciences)
A. Gilgen, Head. F. Barrios, J. Gackenbach, A. Gilpin, G. Harrington,
L. Helhvig, P. Mann, R. Morin, J. Somervill, J. Wallace, L. Walsh,
D. Whitsett, J. Yates.

## Psychology Major

## Required:

Psychology: 40:045; 40:049; 40:118; 40:193 . . . . . . 14 hours
Beginning-level electives -6 hours from the following: 40:015; 40:104; 40:110; 40;120; 40:123; 40:155; 40:160; 40:161; 40:175 6 hours Basic science options - 9 hours from the following: 40:106; 40:127; 40:149; 40:150; 40:152; 40:153; 40:162; 40:163

9 hours
Advanced electives - 9 hours from the following: 40:125; 40:130; 40:142; 40:145; 40:157; 40:158; 40:165; 40:166; 40:170; 40:171; 40:173; 40:189 (3 hrs. maximum); 40:190; 40:192 (3 hrs. maximum); 40:198 ( 3 hrs . maximum)

9 hours
38 hours

## Psychology Major - Teaching

## Required:

Psychology: 40:045; 40:049; 40:118; 40:193 ...... 14 hours
Social Science: 90:190 . . . . . . . . . . . . . . . . . . . . . . 3 hours
Psychology:
Beginning-level electives - 6 hours from the following: $40: 015 ; 40: 104 ; 40: 110 ; 40: 120$; $40: 123 ; 40: 155 ; 40: 160 ; 40: 161 ; 40: 175$ 6 hours
Basic science options - 9 hours from the following: 40:106; 40:127; 40:149; 40:150; 40:152; 40:153; 40:162; 40:163

9 hours
Advanced electives - 9 hours from the following: 40:125; 40:130; 40:142; 40:145; 40:157; 40:158; 40:165; 40:166; 40:170; 40:171; 40:173; 40:189 (3 hrs. maximum); 40:190; 40:192 (3 hrs. maximum); 40:198 ( 3 hrs . maximum) 9 hours 41 hours

## Psychology Minor

Required:
Psychology: 40:045; 40:118 . . . . . . . . . . . . . . . . . . . . 7 hours
Electives in psychology
15 hours
22 hours

## Psychology Minor - Teaching



## Science and Science Education

There is no science department as such. The science majors and the general courses in science are offered under the jurisdiction and general supervision of the Dean of the College of Natural Sciences. The responsibility for programs and courses in science education is delegated to the science education faculty under its chairperson. Members of the science education faculty hold their primary appointments in the various science departments in the College of Natural Sciences.

## Science Major

Required: two of the following four science areas for a
total of . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12-16 hours
Biology: 84:051 and 84:052.
Chemistry: 86:044 and 86:048, or 86:070.
Earth Science: 87:031 and 87:035.
Physics: 88:054 and 88:056.
Electives in science 22-26 hours 38 hours
The equivalent of at least 10 hours in computer science is strongly recommended for this science major.

## Environmental Planning Emphasis

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 an 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 g.p.a. of 2.50 is required for retention in the program.

Required
41-42 hours
Biology: 84:051; 84:052; 84:103; 84:168.
Chemistry: 86:048 or 86:070.
Earth Science: 87:031; 87:035.
Physics: 88:052 or 88:056.
Economics: 92:024 or 92:054.
Political Science: 94:155.
Geography: 97:120 or 97:132.
Geography: 97:109 or
Mathematics: 80:072 or
Biology: 84:157.
One of the following electives in geography: 97:125;
97:135; 97:136; 97:142............................. 3 hours
Internship (84:195) . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3-4 hours
Two of the following electives to make a total of 55
hours ........................................... . . 6-8 hours
Biology: 84:160; 84:166; 84:180.
Earth Science: 87:129; 87:141.
Physics: 88:134.
Biology at Lakeside Laboratory: 89:105.
55 hours

## Science Major - Teaching

## Plan A - Junior High School Science

This major is intended especially for students desiring to teach science in the junior high school. It will lead to DPI approval in General Science.
Required:

| Biology: 84:051; 84:052 | 8 hours |
| :---: | :---: |
| Chemistry:* 86:044 and 86:048, or 86:070 ........ 5-8 hours Earth Science: three courses from 87:010 (with |  |
| Earth Science: three courses from 87:010 (with 87:011); 87:021; 87:031; 87:035. | 9-11 hou |
| Mathematics: two courses from - 80:040; 80:046 |  |
| Physics:* 88:054; 88:056 | 8 hours |
| Science methods | ho |
| Science and Science Education: 82:190; and |  |
| Science and Science Education: 82:194 or |  |
| Biology: 84:193 or |  |
| Chemistry: 86:193 or |  |
| Physics: 88:193. |  |
| Science and Science Education: 82:195 (to be taken over a two-semester period) $\qquad$ |  |
| Electives in science to total 55 hours (must include six hours at 100 level) $\qquad$ | 13 hours |
|  |  |

*Students with sufficient high school preparation may be allowed to omit some of the introductory courses and substitute other courses from the same department.

Students seeking certification in particular disciplines should contact the Dean of the College of Natural Sciences for these guidelines.

## Environmental/Conservation Education Emphasis

This emphasis is designed to prepare junior high school science teachers to serve also as specialists in environmental/conservation education.

## Required:



In addition, the following courses are recommended:
Computer Science: 81:070. Biology: 84:176; 84:182.
Ceography: 97:060. Sociology: 98:148.

## Plan B - All Sciences

This major is intended for students who wish to teach in all areas of science (biology, chemistry, earth science, and physics) at the secondary level. The program will lead to a DPI approval in All Science.
Required:
Biology: 84:051; 84:052 . . . . . . . . . . . . . . . . . . . . . . 8 hours
Chemistry: 86:044 and 86:048, or 86:070 ......... 5-8 hours
Earth Science: 87:010; 87:011; 87:021; 87:031;
87:035 .................................... . 14 hours
Physics: 88:054; 88:056 . . . . . . . . . . . . . . . . . . . . . . . 8 hours
Science and Science Education: 82:190; 82:195.... 3 hours
Two courses from the following. ................. 4 hours
Science and Science Education: 82:194.
Biology: 84:193.
Chemistry: 86:193.
Physics: 88:193.
Electives:*
Biology (should include botanical and zoological science) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8 hours
Chemistry . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8 hours
Earth Science. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2 hours
Physics .......................................... . . 8 hours
68-71 hours
*Elective courses must be ones that count toward the major in the discipline. The electives must include 12 hours at the 100 level or above, with three hours at the 100 level or above in each of three disciplines.

## Notes:

1) Students with sufficient high school preparation may be allowed to omit some introductory courses and thus reduce the total hours required for the major.
2) The mathematics prerequisite for one or more of the above courses is a working knowledge of algebra and trigonometry.

## General Science Subject Field - Middle

 School/Junior High School Education Major*

## 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 Social and Behavioral Sciences. Students will be advised by committee members from the Departments of Economics, Geography, History, Political Science, and Sociology and Anthropology: Inquiries should be directed to the Undergraduate Coordinator, Social Science Program, College of Social and Behavioral Sciences.

## Social Science Major - Teaching

## Required:

Social Science: $90: 190$. . . . . . . . . . . . . . . . . . . . . . 3 hours
Economics: 92:053; 92:054; plus six additional hours in economics (92:139 and 92:141 recommended) 12 hours
Political Science: 94:014; plus 9 more hours in political science (3 hrs. in American politics, 3 hrs. in comparative government or international relations)

12 hours
History: 96:014; 96:015; plus six additional hours in American history or $96: 054$; $96: 055$; plus six additional hours in European, Asian, Latin American, and/or African history; for a total of. . 12 hours
Geography: 97:025 and six additional hours in geography (excluding 97:010) ................ 9 hours
Sociology: 98:058 and nine additional hours in sociology

12 hours
60 hours

1. The above program meets standards for teaching certification in the area of "All Social Studies" Grades 7-12.
2. Anthropology ( $99: x \mathrm{xx}$ ) courses and psychology ( 40 :xox) courses do not count toward this major.

## Social Work

(College of Social and Behavioral Sciences)
V. Faherty, Head. R. Anderson, M. Greene, T. Keefe, D. Maypole, J. McCullagh.

The Social Work Department at the University of Northern Iowa is accredited by the Council on Social Work Education, Washington, D.C.

## Social Work Major

## Required:

Social Work: 45:040; 45:042; 45:091; 45:144; 45:163; 45:164; 45:184;* 45:185; 45:192; either 45:193 or $45: 195 ; 45: 196$ 41 hours
Sociology: 98:080** 3 hours
Psychology: 40:120 or Home Economics: 31:055... 3 hours
Elective from the knowledge category - chosen from the following: Social Work: 45:121; 45:143; 45:171; 45:175; 45:194

3 hours
Elective from the practice category - chosen from the following: Social Work: 45:142; 45:172; 45:173; 45:174; 45:176; 45:193;*** 45:195*** . . 3 hours 53 hours
*45:184 can also be taken for 4 additional credit hours on an elective basis.
**40:049 or 80:072 may be substituted for 98:080.
***Course may be taken for elective credit if not taken to fulfill core course requirements.
No minor is required.
All social work majors must complete Field Instruction (45:184) with at least a grade of $C$ in order to graduate. In order to enroll in Field Instruction the following requirements must be present: senior standing ( 90 or more credit hours completed); cumulative g.p.a. of at least 2.0; g.p.a. of at least 2.0 for all prior social work courses completed; and satisfactory completion of Social Work Practice I and II (45:091 and 45:192) with a minimum grade of $C$.

Social work majors must have a minimum 2.0 g.p.a. in required courses to graduate with a Social Work Major. Students who graduate with a major in Social Work receive a Bachelor of Arts degree with a Social Work Certificate.

## Sociology and Anthropology

(College of Social and Behavioral Sciences)
N. Durham, Head. J. Amold, C. Bartollas, J. Chadney, R. Claus, B. Crew, J. Ehrenreich, T. Hill, R. Kramer, G. Lutz, V. Noack, R. Roberts, J. Stockdale, L. Sunseri.

## Anthropology Major



## Emphases:

General Anthropology - three of the following courses:
Anthropology: 99:142 or 99:143; 99:153; 99:160; 99:163; 99:176.
Sociocultural Analysis - three of the following courses:
Sociology: 98:085.
Anthropology: 99:160; 99:174; 99:176; 99:178.
Not more than nine semester hours of credit from 99:145 (Research Experience in Anthropology), 99:184 (Experience in Applied Anthropology), 99:189, 99:198, $98: 145,98: 184,98: 189$, and $98: 198$ may be applied toward this major.

No minor is required.

## Criminology Major

| Required: |  |
| :---: | :---: |
| Sociology: 98:058; 98:060; 98:080; 98:122; 98:123; |  |
| 98:126; 98:127; 98:175 | 24 hours |
| Anthropology: 99:011. | 3 hours |
| Three hours from the following | 3 hours |
| Sociology: 98:085. |  |
| Anthropology: 99:178. |  |
| Sociology: 98:174 or |  |
| Anthropology: 99:174. |  |
| Three hours from the following | 3 hours |
| Sociology: 98:100; 98:170. |  |
| Anthropology: 99:160. |  |
| Electives: Nine hours from the following | 9 hours |
| Sociology: 98:116; 98:124; 98:128; 98:129; |  |
| 98:130; 98:131; 98:180; 98:184; 98:198; |  |
| 98:162/99:162; 98:169/99:169. |  |
| Anthropology: 99:166. |  |

42 hours
Not more than 18 semester hours of credit taken within the Sociology Major - Teaching or the Sociology Major (liberal arts) may also be counted for credit on this major.

Not more than 15 semester hours of credit taken within the Anthropology Major may also be counted for credit on this major.

Not more than nine semester hours of credit taken within the Sociology Minor may also be counted for credit on this major.

## Sociology Major

Required:
Sociology: 98:058; 98:060; 98:080; 98:085; 98:170. . 15 hours
Anthropology: 99:178. . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Electives in sociology (98:xxx) . . . . . . . . . . . . . . . . . . 12-15 hours
Electives in anthropology (99:xxx). . . . . . . . . . . . . . 3-6 hours
36 hours
At least 15 hours of credit toward the major must be in 100 -level courses.

Not more than nine semester hours of credit from 98:145, $98: 184$, 98:189, 98:198, 99:145, 99:184, 99:189, and 99:198 may be applied toward the major.

Not more than 18 semester hours of credit taken within the Criminology Major may also be counted for credit on this major.

Not more than nine semester hours of credit taken within the Criminology Minor may also be counted for credit on this major.

No minor is required.

## Sociology Major - Teaching

Required:
Social Science: $90: 190$. . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Economics: 92:053. . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
Political Science: 94:014
3 hours
Sociology: 98:058; 98:060; 98:080; 98:085; 98:170. . 15 hours
Electives in sociology (98:xxx) 6-9 hours
Electives in anthropology (99xxx). 3-6 hours 36 hours
At least 15 hours of credit toward the major must be in 100 -level courses.

Not more than nine semester hours of credit from 98:145, 98:184, $98: 189,98: 198,99: 145,99: 184,99: 189$, and $99: 198$ may be applied toward the major.

Not more than 18 semester hours of credit taken within the Criminology Major may also be counted for credit on this major.

Not more than six semester hours of credit taken within the Criminology Minor may also be counted for credit on this major.

A minor is required, and it is strongly recommended that the minor be in another social science discipline.

## Anthropology Minor



## Criminology Minor

Required:
Sociology: 98:122; 98:126; $98: 127 ; 98: 175 \ldots \ldots .12$ hours
Two or more of the following courses: $98: 116 ;$
$98: 123 ; 98: 124 ; 98: 128 ; 98: 129 ; 98: 130 ; 98: 131 ;$
$98: 180 ; 98: 184 ; 98: 162 / 99: 162 ; 98: 198 \ldots \ldots .$.
Electives in sociology or approved area...........
Not more than six semester hours of credit taken within the Sociology Major - Teaching or Sociology Minor may also be counted for credit on this minor.

Not more than nine semester hours of credit taken within the Sociology Major (liberal arts) or Anthropology Major may also be counted for credit on this minor.

## Sociology Minor - Teaching and Liberal Arts

Required:
Sociology: 98:058; 98:060 . . . . . . . . . . . . . . . . . . . . 6 hours
Electives in sociology. . . . . . . . . . . . . . . . . . . . . . . 15 hours 21 hours
Not more than nine semester hours of credit from $98: 145,98: 184$, 98:189, and 98:198 may be applied toward the minor.

Not more than nine semester hours of credit taken within the Criminology Major may also be counted for credit on this minor.

Not more than six semester hours of credit taken within the Criminology Minor may also be counted for credit on this minor.

## Special Education

## (College of Education)

M. Thompson, Head. R. Anderson, W. Callahan, L. Courtnage, S. Etscheidt, S. Frudden, S. Hamre-Nietupshi, T. Little, J. Nietupski, D. Raschke, S. Stainback, W. Stainback.

## Early Childhood Education Major - Preschool Handicapped Emphasis

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.
12 hours
Educational Psychology: 20:109.
Elementary and Middle School/Junior High: 21:149; 21:154.
Reading and Language Arts: 23:044.
Physical Education: 42:045.
Professional Semester*
17 hours
Elementary and Middle School/Junior High: 21:105, 21:192.
Reading and Language Arts: 23:110.
*To be taken simultaneously during the semester immediately preceding the student teaching except Preschool Handicapped Emphasis. A 2.40 g.p.a. in all course work attempted at the University of Northern Iowa and, also, a 2.40 in all course work attempted at this university and elsewhere, or the approval of the head of the Department of Curriculum and Instruction, 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 must be included: art, mathematics, music, science, sociology or anthropology, communication and theatre arts or communicative disorders. A student must take a course in American history or American government and a course in human relations for certification.

A student who wishes to be certified for elementary grades above kindergarten must include the following work in addition to the required work listed above:

Elementary and Middle School/Junior High: 21:152. Reading and
Language Arts: 23:xxx. Teaching: four hours of 28:134. English:
62:xox. Mathematics: 80:134. Geography: 97:xxx.

## Preschool Handicapped Emphasis

The student may enroll in either $(y)$ or ( $z$ ) sections of courses so marked in the Schedule of Classes and will fulfill the regular student teaching requirements at the early childhood level.

## Required:

Special Education: 22:050 or 22:150;22:170;

$$
\begin{aligned}
& \text { 22:174 .......................................... . . . } 9 \text { hours } \\
& \text { 22:153; 22:171; 22:183; 22:187; 22:192 ........ } 18 \text { hours } \\
& 27 \text { hours }
\end{aligned}
$$

## Elementary Education Major - Special Education Emphases

The student will complete the General Education requirements, the Common Professional Sequence, a Professional Semester, the major requirements, the emphasis requirements, as indicated, and electives to complete a minimum of $\mathbf{1 3 0}$ hours. The prescribed program is as follows:
Major requirements . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15-16 hours
Educational Psychology: 20:100.
Special Education: 22:050 or 22:150.
Reading and language Arts: 23:044; and a two- or three-hour elective in reading and language arts.
Educational Media: 24:031 or 24:131.
Physical Education: 42:045.
Professional Semester* . . . . . . . . . . . . . . . . . . . . . . . . . 17 hours
Elementary and Middle School/Junior High: 21:101.
Reading and Language Arts: 23:110.
Mathematics: 80:134.
*To be taken simultaneousty during the semester immediately preceding student teaching by all elementary education majors except those with an emphasis in reading education or special education. A 2.40 g.p.a. on all work attempted at the University of Northern Iowa and, also, a 2.40 g.p.a. on all course work attempted at this university and elsewhere, or the approval of the head of the Department of Curriculum and Instruction, is required to take the professional semester.

The total program (including Ceneral Education) should be planned by the students to include some course work in each of these fields: art, English, geography, mathematics, music, science, and communication and theatre arts or communicative disorders. A student must take a course in human relations and a course in American history or American government for certification.

## Preschool Handicapped Emphasis

The student may enroll in either $(y)$ or $(z)$ sections of courses so marked in the Schedule of Classes and will fulfill the regular student teaching requirements at both the elementary and early childhood levels. Completion of the emphasis qualifies the student for Early Childhood Endorsement 53.
Required:
Special Education: 22:050 or 22:150;* 22:170;

Educational Psychology: 20:109 ................... 3 hours
Elementary and Middle School/Junior High: 21:149; 21:151; 21:154; 21:192

9 hours
Teaching: 28:132 ................................... . . . 4 hours
One course in sociology (98:xax) or anthropology (99xxxx)

2-3 hours 45-46 hours
*This course is also a major requirement.

## Special Education Emphasis

The student may enroll in either $(\mathbf{y})$ or $(z)$ sections of courses so marked in the Schedule of Classes and will fulfill the regular student teaching requirements at either the lower or upper elementary level.

## Required:

Special Education: 22:170; 22:171; 22:174; 22:185; 22:192-Tutorial

13-14 hours
Two courses from: 22:180; 22:182; 22:183; 22:187 ........................................... . . 6 hours
22:192 (Behaviorally Disordered and Mentally
Disabled) - chosen from one area:
Preacademic, Primary, or Intermediate ..... 3 hours
Teaching: 28:135* . . . . . . . . . . . . . . . . . . . . . . . . 4 hours 26-27 hours
*28:135 must be in a different category (i.e., Mental Disabilities or Behavioral Disordered) than the 22:192 experience.
(See Curriculum and Instruction, p. 68, for other emphases under this major.)

## Education of the Handicapped - Secondary Level Minor

| Required: |  |
| :---: | :---: |
| Special Education: 22:050 or 22:150; 22:170; |  |
| 22:171; 22:174; 22:181; 22:182; 22:185. | 19-20 hours |
| 22:192 (three hours each of tutorial and |  |
| secondary experience). | 6 hours |
| Teaching: 28:135 | 4 hours |

Unless otherwise noted, all 22:xxx courses require written approval of the head of the Department of Special Education as a prerequisite.

## Teaching

(College of Education)

## R. Nielsen, Head.

## Malcolm Price Laboratory School

J. Aldrich, C. Amhof, J. Becker, J. Beckman, M. Betterton, C. Bolhwinkel, B. Bone, D. Briggs, R. Brooks, K. Butzier, C. Christensen, T. Cooney, K. Couch, D. Darrow, N. Davidson, A. DeVries, J. Diamond, J. Doud, J. Duea, J. Duea, L. Dykstra, M. Ellis, R. Findlay, J. Finkelstein, D. Finsand, L. Gleissner, M. Grasso, L. Hale, J. Hantula, E. Harris, J. Hines, J. Homby, P. Jackley, A. Jensen, C. Kapler, J. Kelly, D. Kettner, G. Kirkland, K. Klaseus, C. Larsen, R. Lee, M. Link, C. Lubinski, J. McClain, K. McIntyre, P. Mazula, L. Moore, C. Moore, W. Myatt, B. Myers, P. Nelson, L. Nielsen, R. O'Brien, M. Peitz, L. Potter, W. Primrase, S. Rose, L. Schwandt, D. Sprague, E. Strub, R. Strub, C. Struck, A. Swann, J. Tars, N. Teig, M. Vargas, P. Waack, W. Waack, J. Welch, D. Wiederanders, J. Wolfe, H. Yoder.

## Office of Student Field Experiences

M. Mahlios, Director. D. Doerzman, J. Fratianni, R. Hawkes, R. Kuehl, H. Lynch, M. Martin, G. Soroka, R. Stahlhut, J. Wedman.

The Department of Teaching is responsible for the administration of multi-faceted programs of Malcolm Price Laboratory School. The school conducts a program of instruction for approximately 650 pupils enrolled in grades N K through 12. The pupils primarily are residents of Cedar Falls and Waterloo and provide a rich, multi-cultural, public school setting which enables the Laboratory School to respond fully to its university responsibilities. The school offers a comprehensive program of studies and activities. It is a member of the Area 7 Education Agency, and is accredited by the Iowa Department of Public Instruction and the North Central Association of Colleges and Schools.

As a unit of the Department of Teaching, the Laboratory School holds departmental status within the College of Education. It serves three major functions for the university and the state of Iowa:

1. As a teacher education laboratory, the school provides a variety of direct clinical and classroom experiences for students from all departments of the university as they prepare to enter the teaching profession. Members of the faculty supervise and direct these experiences and, in addition, teach university courses both on and off campus.
2. As a center for experimentation and research, the school is involved heavily in the writing of classroom instructional materials and the development of instructional methods and school curricula. Faculty members work together in project teams, frequently cooperating with colleagues across the university campus, at other Regents institutions, and with the Department of Public Instruction.
3. As an agent of leadership to lowa elementary and secondary schools, the Laboratory School regularly sponsors conferences and workshops, participates in the activities of professional organizations, provides extension and consultant services, teaches offcampus extension courses, and cooperates with local and state agencies in faculty development and in-service activities.

## Student Field Experiences

The Office of Student Field Experiences administers the university's program in student teaching which is required of all undergraduates seeking a teaching degree. The student teaching program is administered through the office of the Dean of the College of Education and is under the supervision of the Director of Student Field Experiences and the jurisdiction of the Dean of the College of Education.

Completion of the present undergraduate teaching curriculum requires a minimum of eight semester hours of credit in student teaching for all teacher education majors except for those who have earned credit in student teaching in another college or university. Student teaching credit earned in other colleges or universities does not completely fulfill the student teaching requirements of the University of Northern Iowa. Students who have completed three semester hours of credit or more in student teaching in another college or university in the same areas as their major at the University of Northern Iowa will be held for at least four semester hours of student teaching at this university. Students who have completed either the old, two-year curriculum or the two-year plan and desire to fulfill the teaching program requirements for a baccalaureate degree are required to complete additional student teaching only if they major in an area other than early childhood, lower, or upper elementary teaching.

Teacher education majors seeking a second (dual) endorsement (i.e., early childhood/elementary, elementary/early childhood, elementary/ special education, elementary/secondary, secondary/elementary, elementary/special area, or special area/elementary) must complete a minimum of 12 semester hours of credit, in the sequence of eight plus four $(8+4)$ when possible, as their initial requirement, and must have the approval of their major department(s).

Student teaching generally is offered in blocks of 8,12 , or 16 credit hours. The student who registers for 12 credit hours 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 four weeks or on a halftime 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.

Elementary majors with an emphasis in special education must complete eight credit hours of student teaching in a regular elementary classroom plus at least four credit hours of student teaching in a special education setting in this sequence, when possible. The special education
student teaching must be in a different category (i.e., mental disabilities or behavioral disabilities) than the 22:192 Experience in Special Education (see page 129).

Safety Education and Psychology majors must complete a teaching minor and are urged to do some student teaching in the minor field of preparation when fulfilling their major student teaching assignment.

Special area majors (i.e., art, health, music, physical education, and speech pathology) receive kindergarten-12 endorsement. They are required to complete eight semester hours of student teaching in the special subject area. Special area majors must complete some student teaching at both the elementary and secondary school levels.

Teacher education majors may apply up to 16 credit hours of student teaching toward the 130 -hour minimum required for graduation. Approval of the Teacher Education Coordinating Council (TECC) and Standards, the major department(s), and the Dean of the College of Education is required of each student seeking permission to fulfill the minimum requirement of 8 or 12 hours of credit in student teaching. Teacher education majors who complete elective hours beyond the minimum credit hours required in student teaching must have approval of TECC and the Dean of the College of Education.

The primary purpose of student teaching is to provide the student the opportunity to experience, 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) 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 pattern of experiences, provided in either the campus laboratory school or offcampus affliated 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.

A student teacher who withdraws from student teaching (28:1xx) prior to the midpoint of either the eight-credit-hour or the four-credithour student teaching term will receive a W (Withdrown). However, a student teacher who withdraws from student teaching (28:1xx) after the midpoint of the student teaching term will receive a no-credit grade.

The applicant for student teaching who previously received a nocredit grade in 28:1xx must be recommended for placement to the Teacher Education Coordinating Council (TECC) by the Director of Student Field Experiences following consultation with the coordinator who gave the no-credit grade and the head of the major department(s). Approval by TECC is required for placement.

The scholarship average required before a student is permitted to register for student teaching is specified on page 45 and is the same as that required for graduation (see page 51). A student must also have been approved on a teacher-education program and must file an application for student teaching no less than 90 days 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 boards.

## Interdisciplinary, Majors and Minors

The university offers a variety of interdisciplinary curricula to meet the growing need and interest in work beyond collegiate division. The following programs are under the supervision and jurisdiction of several committees, departments, or colleges as indicated. The programs include:

American Studies Major
Asian Studies Major
Asian Studies Minor
Environmental Perceptions Minor
General Studies Major
Humanities Major
Humanities Minor
Individual Studies Major
Latin American Studies Major
Russian Area Studies Major
Women's Studies Minor

## American Studies Major

This is an interdisciplinary program offered jointly by the College of Social and Behavioral Sciences and the College of Humanities and Fine Arts, and is under the jurisdiction of the heads of the departments of History and English Language and Literature and the general supervision of the Committee on American Studies.

The American Studies major consists of a minimum of nine (9) semester hours in each of the following four areas:

1) American history
2) American literature
3) Economics, geography, political science, sociology and anthropology
4) Religion, philosophy, theater, art, and music

## Required:

History: 96:014; 96:015. English Language and Literature: 62:052. Political Science: 94:014. Philosophy: 65:154 or History: 96:144.
Plus additional electives from the four areas above for a total of 36 hours
Required: a senior colloquium* . ......................... 3 hours 39 hours
The courses from the four specified areas must be chosen in consultation with an adviser from the Committee on American Studies. *Colloquium to be an exploration of the total culture of an era or region in historical perspective 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.
Note: This major does not carry certification to teach. In order to teach, the student should declare a major on a teaching program and make the major in American Studies a second major.

| Required: |  |
| :---: | :---: |
|  |  |
| Humanities: 68:124; 68:125. | 6 hours |
| History: 96:182; 96:187 | 6 hours |
| Economics: 92:053. | 3 hours |
| Political Science: 94:011 | 3 hours |
| Anthropology: 99:011. . . . . . . . . . . . . . . . . . . . . . | 3 hours |
| Electives in Asian Studies: a minimum of 18 hours |  |
| maximum of six (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; 99:165. |  |
| Art: 60:147. |  |
| Economics: 92:143. |  |
| Geography: 97:150; 97:185. |  |
| History: 96:181; 96:183; 96:188. |  |
| Language: Elementary Hindi I and II; Intermediate Hindi I and II; |  |
| Elementary Chinese I and II; |  |
| Intermediate Chinese I and II. |  |
|  |  |
| Poitical Science: 94:163; 94.168; 94:170. |  |
| Supervised Research Project: 68:198 Independent |  |
| Study (to be supervised by the Asian Studies |  |
| Committee). |  |

39 hours

## Asian Studies Minor

## Required:

Humanities: 68:124; 68:125 . . . . . . . . . . . . . . . . . 6 hours
One additional course each in China and India (to be chosen from the list of Asian Studies Major electives)
68:198 (to be supervised by the Asian Studies Committee) combining Asian Studies and the student's major discipline. 3 hours 15 hours
Note: 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 Social and Behavioral Sciences.

## 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 . . . . . . ................................... . . 9 hours Biology: 84:021.
Philosophy: 65:170.
Humanities: 68:189.
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, students may plan a specific program designed to complement their major. Because the Environmental Perceptions Minor is planned to broaden students' awareness of environmental issues as they relate to their major discipline, students 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 or her minor. Approval of the minor prospectus is the responsibility of the Environmental Perceptions Committee.

## 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 five principal academic units* of instruction for a minimum total of

45 hours
The Individual Studies Board can approve certain completed twoyear, vocational-technical programs as fulfilling one of the three college groupings of courses for the General Studies Major. The Director of Individual Studies will provide information about those programs already approved and the methods for submitting such programs for new approval.

Only those students who have no other major may declare and be registered for a General Studies Major.
*The five principal academic units are: 1) School of Business; 2) College of Education; 3) College of Humanities and Fine Arts; 4) College of Natural Sciences; and 5) College of Social and Behavioral Sciences. See pages 6 to 8 for a list of the departments under each academic unit. (See page 41 for the General Studies program for registered nurses.)

## Humanities Major

This is an interdisciplinary major offered by the College of Humanities and Fine Arts, and is under the jurisdiction of the dean of that college.
Required:

*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.

The student, with the consent of the Humanities Adviser, will outline a cohesive program of cross-disciplinary study around a chronological period, theme, culture, or other focus of the student's choice.

All reasonable variations on this program should be approved.

## Humanities Minor

This is an interdisciplinary minor offered by the College of Humanities and Fine Arts, and is under the jurisdiction of the dean of that college.
Required: a minimum of 21 hours with at least one course* to be chosen from each of the following areas -

Humanities: 68:021; 68:022; 68:168.
English and Modern Languages:
English: 62:034.
Languages: 70:110; 70:120.
Arts (participatory):
Communication and Theatre Arts: 50:031; 50:050.
Applied Music: 54:Nxx (instrument or voice).
Art: 60:001.
English Language and Literature: 62:070.
Philosophy and Religion: 64:124; any one of 65:100, 65:101, 65:103 or 65:104.
Social Science:
Psychology: 40:118.
Sociology: 98:060.
Anthropology: 99:011.
Science: 82:175.
Interdisciplinary Studies:
Individual Studies: 00:196** (Interdisciplinary Readings).
Humanities: 68:192.
Science and Social Science majors may be excused from the requirement in their areas, and may substitute a course in any of the other specified areas or in history.
*If any of these courses are taken by the student to meet the requirements of any other program (e.g., general education, major field, etc.), the student must elect another course in any of the above specified areas or in history, except that either 68:021 or 68:022 may be counted for general education.
*"This course should be elected only if $68: 192$ is not relevant to the emphasis of the minor. Readings proposed by the student should act to integrate the work done in the minor.

## 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.

> Required: A coherant, interdisciplinary area of study ......... $30-44$ hours Undergraduate thesis ......................... $\frac{6}{36-50}$ hours
(Plus 34-54 hours of university electives or other major or minor credit which may include courses required for certification.)

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 or her 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 interdepartmental 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 Coordinator 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, the student will be so advised. Also, if the student does not yet appear to be academically prepared, or, if his or her plans are not sufficiently clear, specific steps will be recommended by which such preparation and clarification may be gained. 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 Coordinator 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 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.

## Latin American Studies Major

This major is offered jointly by the College of Social and Behavioral Sciences and the College of Humanities and Fine Arts.
Required:
Spanish: 5-10 hours from: 78:051, 78:052, 78:061,


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:
Russian - 22 hours required as follows:
Courses in intermediate Russian, including
77:011 ................................. . 5 -10 hours
Courses in Russian literature (may include 77:102). ................................... . 5 .6 hours 77:141 .................................... . 3 hours
Electives in Russian to complete the 22 hours . . 3-8 hours Social Science - $\mathbf{2 3}$ hours required as follows:

Economics: $92: 137$. . . . . . . . . . . . . . . . . . . . . . 3 hours
Political Science: 94:164. . . . . . . . . . . . . . . . . . . 3 hours
History:* 96:055; 96:169; 96:170 . . . . . . . . . . . . . 9 hours
Geography: $97: 150$............................ 2 hours
Six hours of electives in European history ..... 6 hours
45 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.

## Women's Studies Minor

This interdisciplinary minor is offered under the jurisdiction and general supervision of the Dean of the College of Social and Behavioral Sciences.
Required:
English Language and Literature: 62:128......... 3 hours
Humanities: $68: 040$. . . . . . . . . . . . . . . . . . . . . . . . 3 hours
History: 96:146. . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
One of the following three courses . . . . . . . . . . . . . 3 hours
Home Economics: 31:055 or Psychology: 40:106 or 40:110
Electives from below list of courses chosen in consultation with the Coordinator of the
Women's Studies Program for a minimum of . . . 9 hours
21 hours
List of electives:
Marketing: 13:152. Management: 15:153. Educational Psychology: 20:100; 20:116; 20:139; 20:140. Elementary and Middle SchoolJunior High: 21:044. Educational Media: 24:131. Social Foundations: 26:135; 26:143. Educational Administration: 27:102. Counseling: 29:105; 29:110; 29:112; 29:114; 29:116; 29:121; 29:124; 29:125. Home Economics: 31:051; 31:152; 31:153; 31:154; 31:177; 31:250. Psychology: 40:125; 40:153; 40:160; 40:173. Health: 41:020; 41:162; 41:164. Social Work: 45:040; 45:163; 45:172. Art: 60:003. English: 62:165. Humanities: 68:168. Computer Science: 81:025. Political Science: 94:014; 94:026; 94:142. History: 96:143; 96:156. Geography: 97:185. Sociology: 98:060; 98:156; 98:173. Anthropology: 99:010; 99:011; 99:153; 99:163.
These electives may also include individual department's readings, topics, and experimental courses, as well as courses sponsored by the Individual Studies Program that directly relate to Women's Studies. The electives selected must have the written approval of the Director to be filed in the Registrar's Office before the final completion and approval of the minor.


# The Graduate Program 

The University of Northern lowa offers a broad curriculum in advanced programs leading to graduate degrees. The eight graduate degrees now offered by the university are:

Master of Arts
Master of Arts in Education
Master of Business Administration
Master of Music
Specialist
Specialist in Education
Doctor of Education
Doctor of Industrial Technology
The university continues its endeavors to meet the needs of higher education and advanced preparation in diverse career fields with a strong and growing graduate program. Graduate degree programs were initiated at UNI in 1951 when the university was authorized by the Board of Regents to offer a program of graduate work leading to the Master of Arts in Education; the program began with the summer session of 1952. In 1960 the graduate program was extended with the addition of a sixthyear 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. The addition of the Ed.D. program, approved by the State Board of Regents in 1982, enables UNI to offer a complete course of professional preparation for the educational practitioner. Six specializations are available through this degree program: counseling; curriculum and instruction; educational administration; reading; school psychology; and special education.

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 program 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 and the Master of Music degree in 1976 demonstrates the university's continued recognition of the changing needs of higher education and the institution's desire to meet those needs. The M.B.A. 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. The Master of Music is a professional degree designed for the student planning a career in college or secondary school teaching, for a performance career as a professional musician or composer, or for further study at the doctoral level.

The Doctor of Industrial Technology, which is the university's first doctoral program, was authorized by the State Board of Regents to begin with the 1978 fall semester. This doctoral program provides advancedlevel study in industrial technology for a wide variety of professional fields and includes the study of the technological systems used in industry and their effect on society and culture.

Graduate majors are available in most departments, and graduatelevel courses are offered by all departments of the university.

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, University of Northern Iowa, Cedar Falls, Iowa 50614.

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 eight colleges and universities of lowa and Illinois which are participating in the QuadCities Graduate Study Center, with offices in Rock Island, Illinois. 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 or her 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 lowa after receiwing the bachelor's degree.)

The admission procedures of the Graduate College are administered separately from those of the university's undergraduate program. Upon receiving an indication of interest in graduate study at UNI by a prospective applicant, the Office of the Registrar will supply appropriate application forms and a description of the scope, policies, and procedures of the university's graduate program.

For purposes of clarity and understanding, the following definitions will apply in the administration of the UNI graduate programs:
Non-Degree Student: A student admitted by the Office of the Dean of the Graduate College for the purpose of pursuing studies unrelated to any graduate degree program.
Non-Degree Status: The status enjoyed by a Non-Degree Student.
Degree Student: A student who has been admitted to a degree program by an academic department.
Degree Status: The status enjoyed by a Degree Student.
Provisional Degree Student: A student who has been admitted, subject to certain reservations, to a graduate degree program by an academic department. The reservations must be overcome before a student may be removed from provisional status, and it is understood that no student may receive a UNI graduate degree while on provisional status.
Provisional Status: The status of a Provisional Degree Student.
Candidate: A student who has been approved for degree candidacy by an academic department and by the Office of the Dean of the Graduate College.
Department: Academic departments of the university offering graduate degree programs and interdisciplinary and interdepartmental bodies offering graduate degree programs.

## Application for Admission

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 Iowa. 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 to be recommended by this university 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 Iowa to recommend them for certificates do not need to file transcripts. An official statement of the degree and date awarded will be sufficient.

Prospective students may apply for graduate admission under one of two categories: Degree Status or Non-Degree Status. Each category carries specific regulations.

Nom-Degree Stetus is established to meet the needs of students who (a) wish to take a miscellany of courses which does not comprise a degree program or (b) hope to demonstrate sufficient competence in graduate studies to be considered for admission to a degree program at a later date.

## Requirements for Admission to Non-Degree Status:

1. A bachelor's degree from an accredited college or university, or
2. Standing within 8 semester hours of graduation ( 4 semester hours in the summer), and in the final semester or summer session, from an accredited undergraduate college or university and enrollment in graduate work concurrently with sufficient undergraduate work to complete a bachelor's degree during the same semester or summer session.
3. A special waiver of the bachelor's degree requirements from the Office of the Dean of the Graduate College.
Responsibility for admitting students into Non-Degree Status and for monitoring their performance lies entirely with the Office of the Dean of the Graduate College.

Students admitted during the senior-year admission provision (see item 2 above) may enroll under the following credit criteria: The combined total of course credits (undergraduate and graduate) may not exceed 15 semester hours in a semester or eight (8) semester hours in a summer session. The graduate work thus completed will be recognized 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 have written approval for each graduate course from the head of the department in which the course is offered.

Degree Status is accorded students who are deemed qualified by academic departments to pursue a program of studies which can culminate in the earning of a graduate degree. Applicants are to specify in their admissions applications their choice of degree program. If the Office of the Registrar determines that the applicant has an accredited bachelor's degree or is in the process of completing the bachelor's degree during the semester concurrent with the application, it will then refer the application to the department which offers the degree program chosen by the applicant. In so referring the applicant to the departments the Office of the Dean of the Graduate College will furnish the department with all relevant supporting materials.

## Requirements for Admission to Degree Status:

1. Those requirements which apply to Non-Degree Status are applicable except that in instances of waiver of the bachelor's degree the academic department concerned must concur with the Office of the Dean of the Graduate College in granting the waiver.
2. Students will be admitted to Degree Status on one of two bases:
a. At the discretion of the academic department concerned, an applicant with undergraduate and prior graduate grade point average of less than 3.00 can be admitted as a Provisional Degree Student. A Provisional Degree Student who completes eight (8) or more credit hours of a degree program with a 3.00 grade point average, or better, is eligible for reclassification to Degree Student Status. The responsibility for such reclassification rests with the academic department concerned.
b. An undergraduate grade point average of 3.00 or higher, or its equivalent if a system other than the four point (4.0) is used, and a prior graduate grade point average of 3.00 or higher (if
applicable) qualifies a student for admission as a Degree Student.
3. Other criteria for Degree Status admission may be established by departments. Students should contact the head of the department for this information.
Non-Degree Students may apply for Degree Status on the same basis as students not previously enrolled in the UNI Graduate College. However, a department may, at its discretion, approve a Non-Degree Student's application for Degree Status even if the student's undergraduate grade point average is less than 3.00 provided that the student has completed eight (8) or more hours of graduate courses with a grade point average of 3.00 or more.

Responsibility for determining eligibility for admission to graduate degree programs rests primarily with the academic departments. The department admitting a student to its graduate degree program will draft a letter of acceptance to be sent to the student; this letter will describe the requirements necessary for completion of the degree program in question. Any waivers of degree requirements as established by a department must be furnished to the applicant by the department in the letter of acceptance.

Students applying for admission to the UNI Graduate College for Degree Status will ordinarily be expected to forward, with their application, their scores of the Graduate Record Examination (GRE) Verbal, Quantitative and Analytical Aptitude Tests, and on the Advanced Test which seems most appropriate to the department to which they are applying for Degree Status. In all cases, the GRE must be taken no later than the first test date following the student's first registration. (If there is doubt on this matter, the department should be consulted before the student takes the examination; some departments may not require their applicants to take an Advanced Test.)

Students applying for admission to a graduate degree program in the School of Business are required to submit their scores of the Graduate Management Admission Test (GMAT). They need not take the Graduate Record Examination. GMAT scores must be received by the School of Business sixty (60) days prior to registration. Under special circumstances, a department may admit an applicant into Degree Status without the student's having completed the Graduate Management Admission Test or the Graduate Record Examination, but in no circumstances will a student be approved for the degree candidacy without having taken the Graduate Management Admission Test (if the student is in the M.BA. program), or (for students in other programs) the Verbal, Quantitative, and Analytical sections of the Graduate Record Examination and, if the department requires it, the Advanced section stipulated by the department in which the student seeks candidacy.

## Post-Baccalaureate, Non-Graduate Study

A student who has received a bachelor's degree may choose to apply for further study at the University of Northern Iowa as an undergraduate rather than a graduate student. Undergraduate status will be accorded students who seek:

1. a second baccalaureate degree; or
2. teacher certification; or
3. a miscellany of courses for undergraduate credit.

Students with baccalaureate degrees cannot earn graduate credit while remaining in this undergraduate classification. They must be admitted either to graduate Degree or Non-Degree Status before they can receive graduate credit for their course work (courses numbered $100(\mathrm{~g})$ or 200 ). The post-baccalaureate student who enrolls at the University should consider carefully whether he or she might want to receive graduate credit for eligible course work. For further information about these admission categories, contact the Graduate College Office or the Registrar's Office.

## Application Dates

Applications for Degree-Status admission to all programs, except the Master of Business Administration program, and all credentials required for admission should be on file in the Office of the Registrar at least one month before registration. Applications for admission to the M.B.A. program and all credentials required for admission thereto must be on file in the Office of the Registrar at least two months before registration.

Foreign students should note the special application deadlines required by the Admissions Office.

Applicants for Non-Degree Status will be accepted up to five (5) days before registration.

## Exceptions

Any departures from the admission procedures outlined above can take place, in the case of a student seeking Degree Status, only with the permission of the Dean of the Graduate College and of the department in which Degree Status is sought.

## Physical Examinations

Although the University of Northern Iowa no longer requires a physical examination and medical history as part of the admission process, students must have a medical history on file at the Health Center before receiving treatment. If one is not already on file it can be completed at the time the student reports for health care. In the case of some illnesses it may be necessary to have a complete medical history and physical examination to aid in proper diagnosis and treatment. If required, the examination can be carried out at the Health Center:

## Grade Point Average

Note: Students admitted to graduate study and taking their first courses prior to fall semester 1978 should refer to the UNI Catalog (1978-1980) for grade point requirements.

Graduate students on degree programs are expected to maintain high academic standards. At the end of each term graduate student records are reviewed, and students with unsatisfactory performances are placed on probation or suspended from graduate degree programs.

The following categories are used for review and action by the Dean of the Graduate College.

1. After twelve (12) semester hours:
a. Cumulative average less than 2.40 - Suspend from graduate degree programs;
b. Cumulative average less than 2.75 - Place on probation.
2. After twenty-four (24) semester hours:
a. Cumulative average less than 2.50 - Suspend from graduate degree programs;
b. Cumulative average less than 2.90 - Place on probation.
3. If the student completes eight (8) hours while on probation without qualifying as a degree candidate, the student is reviewed for suspension from graduate degree programs.
When a student is suspended, at least one calendar year must elapse before reapplication to a graduate degree program may be made. Such applications must be submitted to the Dean of the Graduate College.

In determining a graduate student's grade index, all course work attempted at this university within the student's program of study will be used as a basis of computation. If a graduate student repeats a course, both grades will be used in computing the index.

No more than six (6) semester hours of $C$ credit ( $C+, C, C-$ ) earned within the program of study may be applied toward credit for graduation. (Individual departments may identify specific courses within the program of study for which a minimum grade of $B$ is required.)

## 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 of such other matters as:

1. Departmentally Required Examinations. The Graduate Management Admission Test is required for all students entering the Master of Business Administration degree program. The Graduate Record Examination, Verbal, Quantitative, and Analytical Tests are required of all other students entering graduate degree programs. Students should inquire of their departments which, if any, examinations are required in addition to these.
2. Maximum Academic Lond. The maximum graduate student load during each semester of the academic year is fifteen (15) hours. Persons employed full time should not register for more than six (6) hours of graduate credit in any semester of the academic year.

The normal maximum graduate student load during the eightweek summer session is eight (8) hours; that normally permitted during each four-week split summer session is four (4) hours; that during the two-week post session, two (2) hours.

Exceptions to these load restrictions may be granted only by the Dean of the Graduate College.
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. Graduate credit from other accredited institutions may be accepted to a maximum of one-third of the number of hours (exclusive of thesis credit) required by a particular UNI thesis or non-thesis master's degree program. The specialist and doctoral degree programs each have different transfer credit policies. For a particular degree program's requirements, see its regulations given in this catalog. Students in any graduate degree program should discuss their plans to transfer credits with their program advisers as soon as possible in their degree programs.
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 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. 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 Office of Veterans Affairs

## Waiver of Regulations

Exceptions to Graduate College regulations may be granted by the Dean of the Graduate College. Requests for exceptions will normally be initiated by the student's adviser and approved by the appropriate department head.

These requests and the action subsequently taken will be reviewed periodically with the Graduate Council by the Graduate Dean.

## Graduate Assistantships

Graduate assistantships are available to qualified students who are working toward a graduate degree at the University of Northern Iowa. They may only be held by full-time students who are in residence during the time of the assistantship appointment. The associated work assignment is of an academic nature and designed to contribute to the student's graduate education.

A full assistantship carries a stipend plus tuition. (Partial assistantships may also be awarded.) If a student is on a full assistantship for two consecutive academic semesters, a tuition grant is provided for each of those semesters plus the following summer semester. The associated work assignment will not exceed 20 hours per week assisting designated professors in certain appropriate academic functions, including teaching and research.

A graduate student receiving an assistantship stipend must be enrolled full time during that academic session to a maximum of 12 hours per semester or 6 hours during the summer.

Application forms may be obtained from the office of the Dean of the 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 the 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.

## Scholarships

Information about various sources of financial support for graduate study is available in the Graduate College Office. A student seeking such support should inquire about these sources as far in advance as possible before beginning graduate studies. Most graduate scholarship competitions have application deadlines which occur in early autumn for scholarships to begin the following autumn.

A limited number of graduate assistantships will be available to international students from special funds in the Graduate College. Such funds will augment those assistantships offered by academic departments and programs, although the amount and number of these awards may vary annually.

The Graduate College also administers the campus activities involved in several scholarship competitions, such as Fulbright, Rhodes, and Marshall, which support graduate study abroad. Interested students are encouraged to inquire about these programs of support in their junior or senior year of college or as early in their graduate programs as possible.

Some university departments offer scholarships for graduate study. Students should obtain information about these awards from the departments in which they intend to do graduate work.

## Loans

Qualified students may secure loans from either the National Direct Student Loan Program or the lowa Guaranteed Loan Program. Loans are available to students enrolled at least half time (defined in this case as five hours). Information about 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 the student's time that part-time employment is usually unwise. Individuals who have full-time employment should not register for more than six (6) semester hours of work in any one semester or three (3) semester hours of work in the eight-week summer session.

## Financial Aids Office

Information about assistantships and other sources of financial aid, such as scholarships and loans, may be obtained from the UNI Financial Aids Office, 105 Gilchrist Hall, University of Northern Iowa, Cedar Falls, lowa 50614. See pp. 24.

## 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.

Academic departments offering graduate degree programs have established procedures for monitoring and advising students in order to assure that their work meets the standards and complies with the requirements set by the departments. Accordingly, the department conducts a formal interview between the student and a committee or departmental representative assigned by the department to evaluate and guide the progress of the student. No more than twelve (12) semester hours of credit completed before this interview is conducted can be applied toward the degree being sought. Therefore, the interview should be scheduled no later than the second semester of a program in which the student is enrolled on a full-time basis. Moreover, of those courses completed or begun prior to this interview, only those which are subsequently approved by the interviewing committee or departmental representative will be accepted for credit toward the degree program. At this interview the student's program of study will be planned and approved. Any alterations in that program of study must be approved by this same departmental committee or representative.

The academic departments are not obliged to count toward their degree programs any credit for course work undertaken without specific advice provided in writing by the department, either through an adviser assigned to the student prior to the formal interview or in the course of the interview itself.

For purposes of evaluating an application for candidacy for a graduate degree an academic department may include criteria in addition to a student's grade point average. Computation of the graduate grade point average which is applicable to the evaluation for candidacy is based solely upon those graduate courses which have been approved by the departmental interview committee or departmental representative which has prepared and approved the student program in question.

The student's application for candidacy for a graduate degree will be evaluated on the basis of strength of academic performance and soundness of the plan approved for completing the degree program. Accordingly, the application for candidacy should be filed and reviewed shortly after the departmental interview committee or departmental representative has approved the student's study plan.

The forms on which the application is made are available in departmental offices. The completed 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 Graduate Record Examination Verbal, Quantitative, and Analytical Tests and any other tests required by the department have been successfully completed. The Graduate Management Admission Test is required for the Master of Business Administration degree, and scores will have to be submitted prior to being admitted to that program.
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 or her department head conceming 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 experience 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 ensure 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 appropriate college.
The Dean of the Graduate College may approve the application at once or may delay action until additional scholarship or other data are available or may 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 the Dean's approval of the student's application for candidacy. It usually consists of the student's adviser as chairperson and two additional graduate faculty members. The committee assists the student in further
defining the student's course work, in supervising his or her research and writing, and eventually accepts or rejects the thesis.

The nature of the thesis is described on p. 113.
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 or her first semester in residence. The delineation of an exact topic is not necessary before applying for candidacy, but the designation of a probable area 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 eamed at the University of Northern Iowa.
2. A minimum of nine (9) semester hours in 200 -level credits other than 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 Requirements.

Master of Arts in Education
20:214 Foundations of Instructional Psychology - 3 hrs. or
26:234 Philosophy of Education - 3 hrs.
Master of Arts
Varies with the major. See pp. 114 to 124
Master of Business Administration
No core required.
Master of Music
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. 111 to 113). 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 three (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 Foundations of Instructional Psychology - 3 hrs. or
26:234 Philosophy of Education - 3 hrs.
25:205 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.
Master of Music
No core required.

Professional Core A (prerequisite: Iowa Professional Certificate or equivalent)
20:214 Foundations of Instructional Psychology - 3 hrs. or
26:234 Philosophy of Education - 3 hrs.
25:205 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 lowa Community 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. The research paper must be read and approved by a committee of at least two members of the graduate faculty and be presented in a format acceptable for publication.

## 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 attempted as a graduate student. No more than six (6) semester hours of "C" credit earned within the program of study may be applied toward credit for graduation.
2. Recency of Credit. Courses taken more than seven years prior to the granting of the degree cannot be used to meet degree requirements.
3. Candidacy. The requirements for candidacy are described on p. 110.
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 degree program. However, if use of a correspondence course in authorized, the permissible amount of transfer credit is correspondingly reduced. Graduate credit earned at another institution will not be entered on a student's permanent University of Northern Iowa record until the student's major department approves the credit to be included in the student's program of study. The University of Northern Iowa will not accept as graduate transfer credit courses with a grade lower than "B-."
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 three (3) semester hours of 100 g -evel correspondence credit may be applied to a graduate degree program. The request must be made prior to registering for the course.
6. Workshop Credit. More than six (6) hours of credit earned in workshop courses ordinarily will not be applied toward a graduate degree.
7. Radio and Television Class Credit. Credit earned in radio and television classes usually may not be applied toward the master's degree.
8. Saturday, Evening, and Short-Term Classes. Some courses are available in classes 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.
9. 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 which exist at the time the student is enrolled in a given course.
10. Examinations. All master's degree candidates on either the thesis or non-thesis plan are required to pass a comprehensive examination over a specific body of knowledge as prepared and administered by each 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.

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. 111), and (2) the departmental candidacy examination (see p. 111). Further, if final written and oral examinations are required by his or her thesis committee and major department, the candidate will be required to pass them.

Non-Thesis Plan. The candidate for the degree on the nonthesis plan is required to take the same examinations required on the thesis plan.
11. Research Credit. Registration for xx: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.
12. Residence. At least two-thirds of the minimum hours required for a particular thesis or non-thesis master's degree program must be taken with members of the UNI faculty; this is exclusive of thesis credit. The specialist and doctoral degree programs each have different residence requirements. For a particular degree program's requirements, see its regulations given in this catalog. Students in any degree program should discuss their residence credit plans with their program advisers as soon as possible in their degree departments.

After a student has been admitted as a candidate for the master's degree in the University, and provided that prior arrangements have been made with the Dean of the Graduate College, he or she may take work at the University of Iowa, Iowa State University or the Quad Cities Graduate Study Center, for which residence credit may be given at the University of Northern Iowa.
13. 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 is to be prepared and submitted in accordance with the Thesis Preparation and Submission Guidelines published by the Graduate College office.

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 organizational ability. While the thesis may make no significant 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 six (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 a Research Continued ( $R C$ ) if she or 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 or her 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 a Research Continued in Research up to one additional calendar year. If at the end of that time the work has not been completed, the grade of $R C$ will be changed to an $F$ (Failure).

All students must formally defend their thesis before a committee composed of at least three graduate faculty. Completion of the thesis project occurs when the thesis has been approved by the committee and the Dean of the Graduate College.
14. Flling of Thesis. The thesis must be presented in final form to the thesis committee at least 30 calendar days before graduation. The requirements for the preparation and filing of the thesis are set forth in the Graduate College Thesis Manual. Copies of the manual may be obtained through the Graduate College office and should be consulted prior to beginning the thesis. The student must present two acceptable copies, an original and one copy, both on 20 to 24 pound, $100 \%$ rag-content paper. These copies are retained by the university library. Advance approval is needed if other than 20 to 24 -pound, certified acid-free, paper will be used. The student's major department may request a third copy for its files.

After the thesis committee has accepted the thesis, the student must submit the two copies to the Office of the Graduate College not later than two weeks before graduation. All theses will be forwarded to the University Library for format approval before being approved by the Dean of the Graduate College. When the thesis is submitted to the Office of the Graduate College, the student will present a receipt of payment of the thesis binding cost of $\$ 6$ for the library copies. This fee should be paid at the University Business Office. The student will also indicate to the Office of the Graduate College the name and edition of the style manual used in preparing the thesis.

Awards for Literature Search and Computer Use - Basic access to academic computing software and systems is available to all students enrolled at the University. Students are assessed a Student Computer Fee each semester in partial payment for this service. During fall and spring semesters, the fee is $\$ 20$ for a full time student. Graduate students who have need for specialized resources (programming, data entry, access to off-campus resources) may apply for additional support. Interested students should pick up an application form from the Department Office of Academic Computing Services ( 23 Baker), complete the form and request the signature of their advisers, and return it to Academic

Computing Services. While some specialized services result in direct user fees, every effort is made to minimize out-of-pocket expenses for creative activity involving the use of computers.
15. Filing of Abstracts of Thests. An abstract or summary of the thesis is required of all candidates following the thesis plan toward the master's degree. The abstract will be approximately 500 words in length and is submitted with the thesis. Three copies of the abstract must be filed in the Office of the Graduate College; two of the abstracts will be filed with the University Library and the third will be retained by the Office of the Graduate College.
16. Application for Graduation. A 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 or she 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.
17. 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 nonthesis plans is listed below. These are the minimum number of hours and should not be interpreted as a maximum number. Additional hours may be required by departments for individuals on specific programs or special objectives.

|  | Thesis | NonThesis |
| :---: | :---: | :---: |
| Minimum graduate hours required. . . . . . . . . | 30* | 30-37** |
| Minimum hours of credit at UNI | 20 | 20-25 $\dagger$ |
| Maximum usable hours combined in transfer and correspondence credit. | $10 \ddagger$ | 10-12 $\ddagger$ |
| Maximum usable hours of correspondence credit (requires special permission to use) | 3 | 3 |
| Minimum hours required in courses numbered 200 and above. $\qquad$ | 9\# | 12\#\# |

- Includes (six) 6 semester hours for research.
**Includes at least one research paper. Total hours depends on major chosen.
$\dagger$ Must include six (6) or more hours in one semester or summer session.
$\ddagger$ Up to one-third of the hours on the graduate study plan.
\# In addition to the six (6) hours research credit for thesis.
\#\# In some departments they may include three (3) hours of $\mathrm{xx}: 299$ 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 the college.

Students with an Iowa Professional Certificate, the master's degree, and four years of successful teaching experience are entitled to an Iowa Permanent Professional Certificate with appropriate 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 (8) 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 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 for graduate study without reference to teaching. The following majors are offered.

Art
Audiology
Biology
Business Education
Chemistry
Communication and Theatre Arts
Communications and Training Technology
Computer Science Education
Counseling
Earth Science
English
English Linguistics
French
General Psychology
Geography
German
Health Education
History
Home Economics
Industrial Arts
Library Science
Mathematics

Mathematics for Elementary and Middle Schools (K-9)
Music
Physical Education
Physics
Political Science
Science
Science Education
Science Education for Elementary
Schools (K-6)
Social Science
Sociology
Spanish
Speech-Language Pathology
Teaching English to Speakers of Other Languages (TESOL)
Technology
TESOLModern Languages
Translation and Interpretation (Spanish/English)
Two Languages: French/German, Spanish/French, German/ Spanish

The Master of Arts program is a highly flexible one. The plan of study prescribed for each student depends upon the student's undergraduate preparation, experience, and future plans. The needs of the student, as determined by the student and herfhis adviser and 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. 111-113.

## Major in Art

Two emphases are offered: Art Education and Studio.
Qualified applicants are admitted by the Graduate Faculty Admission Committee following selective review of all prior academic and creative achievement. Demonstrated equivalencies may be considered. In those instances where undergraduate deficiencies are identified at the time of admission, additional course work will be required; however, credit for such course work may not be applied toward the degree program.

The minimum admission requirement for students pursuing the Arti Education Emphasis is the completion of 12 semester hours of art history and 27 semester hours in studio at the undergraduate level. Students pursuing the emphasis in Studio must have completed 15 semester hours in art history and 57 semester hours in studio at the undergraduate level.

Each student, regardless of emphasis, must complete a minimum of 30 semester hours of credit including the following common core:

4 semester hours in 60:280; and
6 semester hours of graduate-level art history.
Beyond this required core, individualized programs of study are carefully planned and approved in consultation with a graduate adviser.

## Art Education Emphasis:

In addition to the common core, students may elect one of five possible directions: improvement as a teacher, research in art education, submission of an original program proposal, certification as a Curriculum Specialist in Art, or teaching certification for Iowa community colleges.

## Studio Emphasis:

In addition to the common core, students may elect specialization in any one of the following studio areas: ceramics, drawing, graphic design, metal-work, photography, painting, printmaking, or sculpture. The degree program is flexible to allow maximum focus upon a specific studio area and/or supportive studio work in several or combined areas.

Two program options are available: thesis or studio-thesis. Students whose emphasis is Art Education must elect the thesis option. Students whose emphasis is Studio may elect either option.

The studio thesis, a creative thesis unique to the Department of Art, is highly recommended for those students who wish to consider additional professional study beyond the master's level. It requires the public presentation of a formal exhibition, performance or project including a catalog, together with a formal documentation of that presentation for submission to the Dean of the Graduate College.

Election of the thesis option should be considered only by those students whose studio specialization involves the testing or documentation of highly innovative and technical studio-related procedures.

Guidelines, procedures, and requirements for each emphasis and program option are available from the Head of the Department of Art.

All degree candidates are required to pass a formal Comprehensive Review in partial fulfillment of the Master of Arts degree requirements.

## 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 in either the thesis or the non-thesis option, a thesis will be permitted only with the department's approval. The non-thesis plan requires four (4) additional semester hours of course work.

Required:
Communicative Disorders: 27 semester hours in audiology, including the following courses: 51:258; 51:265; 51:270; 51:271; 51:272; 51:273; 51:274; 51:275; 51:289.
Related or tool area: 6 semester hours in courses to be selected by the students as approved by the student's adviser.

To meet academic requirements for the Certificate of Clinical Competence - Audiology, issued by the American Speech-Language-Hearing Association, as well as state licensure laws, a student is required to have:
Six semester hours in speech/language 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.

Twelve 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; or c) linguistic and psycholinguistic variables related to normal use of speech, language or hearing.

A minimum of 300 clock hours of supervised clinical experience is required for the major and may be counted toward the clinical work required for the Certificate of Clinical Competence in Audiology.

## Major in Biology

This major is available on both the thesis and non-thesis options. Prospective majors must complete an application with the department prior to beginning their programs. This application should include three recommendations, a transcript, and GRE aptitude and advanced biology test scores. Forms and policies regarding graduate study in biology are available in the departmental office. It is recommended that students have the following background prior to enrollment in the graduate program: 12 hours of botany, 12 hours of zoology, 12 hours of chemistry (at least 4 hours in organic or biochemistry), as well as cell biology, genetics and ecology. Students deficient in these will be required to include them in their programs.

Required courses: Science and Science Education: 82:200 (2 hrs.). Biology: 84:202 (2 hrs.); 84:257 (2 hrs.); 84:292 (2 hrs.).
Minimum number of hours for the non-thesis option is 37 semester hours, including a 3-credit-hour research paper. At least 23 credit hours must be in the field of biology.

Minimum number of credit hours for the thesis option is 30 hours, including 6 hours of credit for thesis research. At least 12 hours of credit exclusive of thesis research must be in biology.

## Major in Business Education

This major is offered in two emphasis areas: the Business Teaching Emphasis and the Administrative Management Emphasis. Both the thesis and the non-thesis options are available in either emphasis of the major.

The Graduate Record Examination (GRE) or the Graduate Management Admission Test (GMAT) must be taken prior to acceptance into the Master of Arts degree major in Business Education. Admission to candidacy for the program is dependent upon the quality of the applicant's undergraduate record and test scores.

Students must have earned a degree from an AACSB-accredited school of business program or are required to complete the following courses, or equivalent courses:

Accounting: 12:030; 12:031.
Marketing: 13:152.
Management: $15: 020 ; 15: 100 ; 15: 153 ; 15: 154$.
Economics: 92:053.
Management: 15:080 or
Information Management: 18:070.
Credit earned in these courses may not be applied to the requirements for this major.

The Business Teaching Emphasis provides for the needs of business and vocational business teachers who wish to continue their education at a higher level.

Required:
Information Management: 18:207, 18:210; 18:220; 18:234; 18:240; 18:280; 18:290; 18:299.
Measurement and Research: 25:205.
If vocational certification is desired, the following two courses are required: Information Management: 18:112; 18:113.

The Administrative Management Emphasis is designed to qualify students for leadership positions in office occupations. The program is open to students who have a baccalaureate degree in either business or non-business.

Required:
Management: 15:262.
Information Management: 18:117; 18:119; 18:120; 18:130; 18:220; 18:289; 18:299.
Plus a minimum of 8 hours ( 5 hours of which must be in 200-level courses) from one of the following areas: accounting, marketing, management, or personnel.
Students who have completed any of the 100 -level courses at the undergraduate level will select appropriate substitutes in consultation with the major adviser.

## Major in Chemistry

This major is available with or without teaching emphasis on either the thesis or non-thesis plan. A minimum of 30 semester hours is required for this major, and the total number of hours will depend upon the student's undergraduate preparation and professional objectives.

Courses in chemistry to be applied to the M.A. teaching program must be beyond the requirements for B.A. Chemistry - Teaching, and courses in chemistry to be applied to the M.A. non-teaching program must be beyond the requirements for the B.A. Chemistry Major. Individual programs will be worked out in consultation with the departmental graduate adviser.

All programs must include:
Science and Science Education: 82:200 or an equivalent course, and
Chemistry: at least 3 hours of research, 86:299.
Professional Core B is recommended for two-year college teaching preparation.

All new graduate students should take an orientation examination, administered by the Chemistry Department, during registration or on the first day of classes. Policies on graduate study in chemistry must be obtained from the departmental office.

Attention is also called to the chemistry-physics teaching emphasis program available under the Science Major for the Master of Arts degree. Students may inquire at the Chemistry Department office for information on the program.

## Major in Communication and Theatre Arts

A student may seek a general program or specialize in Interpretation, Communication/Public Address, or Theatre. The major is available only on the thesis plan and requires a minimum of 30 semester hours.

Required:
Communication and Theatre Arts: 50:225;
one graduate seminar;
6 hours of research/thesis; plus
9 hours of 200 -level courses.
At least 20 hours must be taken from departmental courses. Comprehensive examinations are required of all students in this major.
Students taking Professional Core A or B must take 50:230 and 50:189.
Detailed information on the major, including directions for procedures to follow in planning an individualized program and requesting assignment of an adviser, may be obtained from the Head of the Department of Communication and Theatre Arts.

## Major in Communications and Training Technology

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 38 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:
Educational Media: 24:101; 24:130; 24:131; 24:230; 24:235; 24:240; 24:289; 24:297; 24:299.
Electives - 12 credit hours of electives are required from the following courses: 24:105; 24:138; 24:145; 24:147; 24:148; 24:150; 24:151; 24:152; 24:155; 24:156; 24:205; 24:260; 24:285; 24:286.

## Major in Computer Science Education

This program is designed for a person who is already certified to teach in secondary schools. Its principal purpose is to prepare that person to teach computer science in secondary schools. In addition to certification, before starting the program a person must demonstrate a working knowledge in two programming languages, one of them being Pascal, and must have completed a course in data structures.

This major is offered on both the thesis and non-thesis options. A minimum of 32 hours is required.

Required:
Educational Psychology: 20:214.
Educational Media: 24:205.
Measurement and Research: 25:205.
Computer Science: 81:135; 81:140; 81:145; 81:251; 81:252; 81:253.
Electives - a minimum of 7 hours from the following:
Educational Media: 24:240; 24:260.
Computer Science: 81:111; 81:132; 81:150; 81:155; 81:160; 81:178; or another course in an area of computer application outside computer science for $1-3$ hours.

## Major in Counseling

The program is designed for persons who plan to counsel in nonschool settings such as churches, industry, mental health agencies and employment services. Specific areas of interest and the professional field in which the person plans to work will determine the supporting courey work and the appropriate electives. A teaching certificate is not necessary for students pursuing this degree.
Required courses. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 43 hours
Psychology: 40:142 or
Educational Psychology: 20:142.
Educational Psychology: 20:230.
Home Economics: 31:252 or
Educational Psychology: 20:235.
Counseling: 29:103; 29:105; 29:124; 29:125; 29:150; 29:205; 29:220; 29:226; 29:227; 29:228; 29:289.
Measurement and Research: 25:205.
Required Practicum and Internship ................. . 9 hours
Counseling:
29:290 Practicum - Agency Counseling (3 hrs.)
Internship - Agency Counseling ( 6 hrs.)
Electives: a minimum of 8 hours, selected in
consultation with adviser. 8 hours
60 hours

## 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 studen. and his graduate committee.

Required:
Earth Science: 87:292 or
Measurement and Research: 25:294.
Science and Science Education: 82:200.
Electives: as approved by the department. A minimum of 18 hours of graduate credit 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 non-thesis options. Students choosing the non-thesis option will also select one of three emphases: a) Literature Emphasis - no professional core; b) Teaching English in Middle, Junior High, and Secondary School Emphasis - Professional Core A; or c) Teaching English in Community Colleges Emphasis - Professional Core B.

Before being admitted to degree candidacy, graduate students are required to meet with a department committee for a Candidacy Interview. Students should arrange with the Coordinator of English Graduate Studies to complete this interview during the first semester of their course work. The departmental Candidacy Interview Committee may require a candidate to complete additional course work above the minimum hours specified for the selected option or emphasis. In such cases, these hours will be specified at the time of the interview.

Candidates for this major must achieve a cumulative grade point average of at least 3.00 for all course hours taken in the Department of English Language and Literature.

## 1. Thesis Option

Students selecting this option are required to take the Advanced Test, "Literature in English," in addition to the Aptitude Tests of the Graduate Record Examinations.

Native speakers of English must demonstrate proficiency in another language by earning at least a "C" grade in a second-semester, collegelevel course or by passing a specially designed examination. Course work taken to satisfy this foreign language requirement does not count toward the number of hours required for completion of the degree major.

## Required:

English Language and Literature: Minimum of 30 hours including 9 semester hours of 200 -level courses and 6 hours of 62:299 (Research) for the thesis. 62:201.
Electives: planned with adviser and subject to approval of Candidacy Committee - 21 semester hours.
Students selecting the thesis option are required to take the final Comprehensive Examination, Part One (Core Reading List).

## II. Non-Thesis Option

A. Ltterature Emphasis (no professional core)

Students selecting this emphasis are required to take the Advanced Test, "Literature in English," in addition to the Aptitude Tests of the Graduate Record Examinations.

Native speakers of English must demonstrate proficiency in another language by earning at least a "C" grade in a secondsemester, college-level course or by passing a specially designed examination. Course work taken to satisfy this foreign language requirement does not count toward the number of hours required for completion of the degree major.

Required:
English Language and Literature: Minimum of 30 semester hours including 15 hours of 200-level courses. 62:201.
Electives: planned with adviser and subject to approval of Candidacy Committee - 27 semester hours.
Students selecting this emphasis are required to take the Final Comprehensive Examination, Part One (Core Reading List) and Part Two (selected specialty).

## B. Emphasis: Teaching English in the Secondary Schools (Middle/Junior and Senior High) (Professional Core A)

Students selecting this emphasis are required to take either the "Literature in English" or the "Education" Advanced Test in addition to the Aptitude Tests of the Graduate Record Examinations.

A prerequisite for admission to candidacy on this emphasis is the Iowa Professional Certificate or its equivalent. Students admitted to candidacy are expected to have completed the following course work as undergraduates: one course in linguistics; one course in advanced writing; two courses in British literature; one course in American literature; one course in modern or ethnic literature; and 62:190 (Teaching of English). Three semester hours of electives on this master's program may be used to fulfill one of these prerequisites; however, any further deficiencies must be taken in addition to the major's requirements. Students who have not taken all the required prerequisite work should consult at once with the English Department's Coordinator of Graduate Studies in order to plan appropriate course work.

A minimum of 32 semester hours, including at least 15 hours of 200 -level courses, is required for the Major in English with the emphasis, as follows:

Required:
Educational Psychology: 20:214 or
Social Foundations: 26:234.
English Language and Literature: 62:165; 62:193; 62:201; 62:207 or 62:291.
6 hours in 200-level literature courses.
Electives: 6 hours.*
Reading and Language Arts: 23:130.
Linguistics: 63:190; and one of the following - 63:143; 63:156; 63:192.
*Students who have not had 28:138 (Secondary School Teaching) in English are required to take 62:297 (Practicum) - 1 hour.

Recommended electives: a course in journalism, film, speech, or drama; a course in reading or English education; at least one course in literature.
A student who has completed any of the required courses at the undergraduate level may elect other departmental courses to complete the required minimum total of 32 hours.

Students selecting this emphasis are required to take the Final Comprehensive Examination, Part One (Core Reading List) and Part Two (specialty in teaching English in middle, junior high, and secondary schools).

## C. Emphasis: Teaching English in Community College (Professional Core B)

Students selecting this emphasis option are required to take either the "Literature in English" or the "Education" Advanced Test in addition to the Aptitude Test of the Graduate Record Examinations.

Students admitted to candidacy on this emphasis are expected to have completed the following course work as undergraduates: one course in linguistics; one course in advanced writing; two courses in British literature; one course in American literature; and one course in modern or ethnic literature. Any deficiencies must be taken in addition to the major's requirements. Students who have not taken all the required prerequisite work should consult at once with the English Department's Coordinator of Graduate Studies in order to plan appropriate course work.

Students completing this program may be recommended for endorsement to teach at the community college or junior college level. Note: All certification in Iowa requires a course in either American history of American government, plus a course in human relations.

A minimum of 35 semester hours, including at least 15 hours of 200 -level courses, is required for the Major in English with this emphasis, as follows:

Required:
Educational Administration: 27:252.
English Language and Literature: 62:193; 62:201; 62:292; 62:297.
Linguistics: 63:190 or 63:194; 63:192.
Educational Psychology: 20:189 (to be repeated once for total of 2 hours of credit) or 20:214.
Reading and Language Arts: 23:130.
6 hours of 200-level literature courses;
One 2-or 3-hour course in journalism, television, radio, film, or speech.

## Electives: 3 hours.

A student who has completed any of the required courses at the undergraduate level may elect other departmental courses to complete the required minimum total of 35 semester hours.

Students selecting this emphasis are required to take the Final Comprehensive Examination, Part One (Core Reading List), and Part Two (specialty in teaching English in community colleges).

## Major in English Linguistics

This major is offered on both the thesis and non-thesis options for a minimum total of 30 semester hours on either option.

Before being admitted to degree candidacy, students are required to meet with a departmental committee for a Candidacy Interview. Students should arrange with the Coordinator of TESOL Linguistics to complete this interview during the first semester of their course work. The departmental Candidacy Interview Committee may require a candidate to complete course work in addition to the minimum of 30 semester hours required for a master's degree. In such cases, this work will be specified at the time of the interview.

## Required:

Linguistics: 63:254; 63:256.
63:280 to be taken each semester offered up to a maximum of 3 semester hours credit.
The remainder of the 30 hours shall be selected by the student in consultation with an adviser. Such electives may include appropriate courses from outside the discipline (e.g., foreign language, philosophy, mathematics, anthropology, psychology, communicative disorders, or literature).

It is recommended that all students acquire some knowledge of at least one of the following: computer programming, mathematical logic, or set theory. A student who has taken any of the required courses or their equivalents may substitute electives for these hours.

Candidates for this degree must achieve a grade point average of at least 3.00 for all courses taken in the Department of English Language and Literature.

Native speakers of English must demonstrate proficiency in another language by earning at least a "C" grade in a second-semester, collegelevel course or by passing a specifically designed examination. International students must have achieved a Test for English as a Foreign Language (TOEFL) score of 600, or the equivalent, in order to demonstrate their proficiency in English. An international student may be required to take additional English as a Foreign Language courses at the discretion of the TESOL and linguistics faculty. Work taken to satisfy the language proficiency requirement does not count toward the 30 semester hours required to complete the program.

Students on the non-thesis option are required to take a comprehensive examination.

## Major in French

The Major in French is available on both the thesis and non-thesis options; a minimum of $30-32$ hours is required for either option. On the non-thesis option, a minimum of 12 hours must be in courses at the 200-level; 9 hours of 200 -level courses is the required minimum on the thesis option. The non-thesis option also requires a research paper which must be approved by the candidate's committee and filed with the Department of Modern Languages before the comprehensive examinations may be taken.

Required:
A minimum of 8 hours in literature courses. A minimum of 8 hours in linguistics, grammar and/or translation courses. One course in civilization or culture (unless previously met).
The remainder of the program will be determined by the student's needs in consultation with her/his adviser. No more than six semester hours in Translation or six hours in Interpreting may be applied toward this major.
Note: 70:195 is required for all M.A. candidates unless exempted for the following reasons: 1) the student has completed a similar course elsewhere, or 2 ) the student submits proof of having written a successful
research paper; the course will not count toward the $30-32$ hours required of this major.

## General Psychology Major

This program is designed to: 1) provide strong basic training in experimental design, scientific methodology, and the analysis and interpretation of data; 2) familiarize students with research and theory in several major areas of psychology; 3) provide direct experience in evaluating, planning, conducting, and reporting research projects; and 4) prepare students for either doctoral-level studies in experimental or clinical psychology or for provision of psychological services under appropriate supervision in applied settings. In addition to meeting general university admission requirements, applicants must submit to the department Graduate Record Examination scores for aptitude and advanced psychology tests, and three letters of recommendation. Students must also complete a departmental application form.

Required:
Psychology: 40:239; 40:297 (1 hr.); 40:299 (2 hrs.); Thesis ( 6 hrs .); five graduate courses approved by the department representing five of the following seven areas: developmental, social, biological, learning, psychopathology, cognitive, and personality; and three three-hour electives. A minimum of 36 semester hours, including thesis, is required for the MA. degree. All courses assume at least one undergraduate course in the same area as a prerequisite.
Students may elect to pursue a clinical emphasis consisting of course work and practicum experiences designed to prepare them for clinical work or further clinical training. Clinical students and experimental students, in consultation with their advisers, must choose courses in their specialty area to fulfill elective hours.

## Major in Geography

As required by the Graduate College, the student must complete a minimum of 30 semester hours, of which 6 hours are for thesis research. Additional hours may be required to make up for deficiencies in the student's background, as determined by the Geography faculty.

Required:
Thesis, or an equivalent project approved by the Geography faculty.
Students must pass a comprehensive examination, both written and oral.

## Major in German

The major in German is available on both the thesis and non-thesis options; a minimum of $30-32$ semester hours is required for either option. The non-thesis option requires a minimum of 12 semester hours in courses at the 200 level; 9 hours of 200 -level courses is the required minimum on the thesis option. The non-thesis option also requires a research paper which must be approved by the candidate's committee and filed with the Department of Modern Languages before the comprehensive examinations may be taken.

## Required:

A minimum of 8 hours in literature courses.
A minimum of 8 hours in linguistics, grammar and/or translation courses. One course in civilization or culture (unless previously met).
The remainder of the program will be determined by the student's needs in consultation with his or her adviser. No more than six hours in Translation or six hours in Interpreting may be applied toward this major.
Note: 70:195 is required for all M.A. candidates unless exempted for the following reasons: 1) the student has completed a similar course elsewhere, or 2) the student submits proof of having written a successful research paper; the course will not count toward the $30-32$ hours required of this major.

## Major in Health Education

A minimum of 30 semester hours is required in both the thesis and non-thesis options for this major. Additional hours may be required, if, upon entering the graduate program, the student lacks satisfactory prerequisites for required courses. Total hours for the thesis option includes six (6) hours of credit for the thesis. Emphases are offered on this major.

Required for all emphases:
Health: 41:255.
Measurement and Research: 25:205 or
Physical Education: 42:290.
Electives as approved by the graduate committee of the School of Health, Physical Education, and Recreation.

## Emphases:

I. Health Promotion/Fitness Management Emphasis

Required: Health: 41:290; 41:293.
II. Community Health Education Emphasis

Required: Health: 41:290; 41:293.
III. Cardiac Rehabilitation Emphasis

Required: Health: 41:172; 41:271; 41:272; 41:275; 41:277.
Physical Education: 42:253.
Measurement and Research: 25:180.
IV. School Health Education Emphasis

Required: Health: 41:148.
The additional course requirements for this emphasis will be governed largely by the Iowa Professional Certification requirements.

## Major in History

This major is available on either the thesis or non-thesis option with a minimum of 30 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:
History: 96:193; 96:290 or 96:292; 96:289 United States Historiography or 96:289 European Historiography or another approved historiography course.
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 MA. degree.

Students must take 3-6 semester hours outside the field of history.

## Major in Home Economics

A minimum of 30 semester hours is required in both the thesis and non-thesis options for this major. Up to 20 additional hours may be required if, upon entering the graduating program, the student lacks the equivalent of an undergraduate major in the graduate emphasis. Students wishing to pursue the emphasis in Home Economics Education must qualify for an lowa home economics teaching certificate or fulfill the requirements for such certification in their master's degree program. Total hours for the thesis option includes 6 semester hours of credit for the thesis. Students electing the non-thesis option are required to write a research paper. Two emphases are offered in this major.

Required for both emphases: Home Economics: 31:281.

Electives must be approved by the departmental graduate committee, and may include courses in related disciplines such as chemistry, biology, art, psychology, educational psychology, counseling, social work and/or sociology.

## I. Emphasis in Home Economics Education

Required: Home Economics: 31:280; 31:282 or 31:284; 31:283.

## II. Emphasis in Family Services

Required: Home Economics: 31:151 or 31:250; 31:252; 31:290.
At least 15 of the total hours for either program must be in the emphasis area selected. $31: 281,31: 282 ; 31: 284 ; 31: 285 ; 31: 286$, and 31:289 may be counted toward either emphasis depending upon the content of the course.

## Major in Industrial Arts

The Industrial Arts Major is available on both the thesis and nonthesis 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 (7-14 teachers):
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Industrial Technology: 33:214; 33:226; 33:228; 33:270 (6 hours) or
thesis; 33:292.
Required for Professional Core B (post-high school teachers):
Educational Administration: 27:250; 27:252.
Industrial Technology: 33:214;33:226; 33:270 (3 hours) or thesis; 33:292; 33:297.
Required for Departmental Core (individually planned programming):
Industrial Technology: 33:270 ( 6 hours) or thesis;
33:292; and program requirements based on
student's needs and interests as cooperatively
planned by student and adviser and approved by departmental Graduate Committee.
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 education.

Candidates selecting the non-thesis option must write a formal research paper (usually initiated in $33: 270$ ) approved by the Graduate Adviser and reader.

## Major in Library Science

For certification as school media specialist, students must hold or be eligible for the lowa Professional Certificate or its equivalent.

Required: Library Science: $35: 113 ; 35: 121 ; 35: 210 ; 35: 295$.
Additional course requirements for either the thesis or non-thesis plan will be determined by the department. Requirements will be governed largely by certification needs.

Non-thesis plan requires a minimum of 33 semester hours.

## Major in Mathematics

Ths major requires as a prerequisite a bachelors degree with a major in mathematics or the equivalent. It prescribes no specific graduate courses; upon successful completion of the Candidacy Examination, the individual student programs are chosen with the help of the student's adviser.

A minimum of 30 semester hours is required for both the thesis and non-thesis options.

Students expecting to teach may choose one of the two core programs; however, no core is required for this program.

## Major in Mathematics for Elementary and Middle Schools (K-9)

This major is intended for teachers and supervisors. Candidates are expected to hold appropriate certification or to provide for it in the program.

Required advanced education courses: at least 8 hours selected from the following:
Educational Psychology: 20:109; 20:116; 20:130; 20:214; 20:241.
Elementary and Middle School/Junior High: 21:141; 21:201; 21:255; 21:270.
Educational Media: 24:205; 24:240.
Measurement and Research: 25:180; 25:205.
Teaching: 28:250.
Required mathematics education courses:
Mathematics: 80:191; 80:235; 80:280; 80:281; 80:290; 80:292 or 80:295.
Required mathematics content courses: at least 10 hours selected from:
Mathematics/Computer Science: 80:111; 80:112; 80:113; 80:120; 80:144; 80:160; 80:165; 80:172; 80:174; 80:180; 80:189; 80:210; 80:236; 81:102.

## Notes:

1. The department may substitute as many as 2 credit hours from $80: 133,80: 233,80: 285,80: 286$, and $80: 297$ for courses in the categories of "Mathematics Education" and "Mathematics Content."
2. The department may substitute 6 credit hours from $80: 299$ for courses listed in the three categories for students on the thesis option. This will normally be accomplished by reducing the required credit hours in each of the above categories by 2 credit hours.
3. A student on this major must have completed $80: 134$ (or the equivalent) as an undergraduate or else complete this course as a graduate student in addition to the preceding requirements.
4. The specific courses on a student's program will be selected by the student and her/his adviser.

## Major in Music

Students wishing to take courses for graduate credit in the School 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 revieved.

Only one program of study leads to the Master of Arts degree in music: the major in Music. It involves a course of study comprising a minimurn of specialization and a maximum of curricular flexibility. (For a listing and discussion of the majors which exist on the Master of Music degree, see page 130.)

An applicant for a graduate degree program in the School 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 (e.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 a 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 also must pass a written examination prior to the oral examination. For discussion of credit for applied music under the MA. degree, see page 175.

## The Program

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:
Graduate Music Core
11 hours
Music: 52:221. Music Theory: 58:210, 58:211;
$58: 212$. One course from the following -
Music Literature and History: 59:110; 59:111; 59:112; 59:114; 59:115.
Specialization: Applied Music (54:18xg)

4 hours
Electives: Music (all areas except applied music)

9 hours
Other electives as approved by the department

6 hours
30 hours

## Major in Physical Education

This major is offered on both the thesis and non-thesis options. 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 in physical education at the undergraduate and graduate levels, exclusive of activity courses.

Candidacy and comprehensive examinations will be required of all students.

Three emphases are offered on this major:
A. Teaching/Coaching: This emphasis is designed for those who plan to teach and/or coach in the school setting.
Required:
Physical Education: 42:290 or
Measurement and Research: 25:205.
Educational Psychology: 20:214 or
Social Foundations: 26:234 or
Educational Administration: 27:250.
Physical Education: 42:295 or 42:297; at least
four courses from among 42:222; 42:251;
42:253; 42:255; 42:273; 42:274.
Electives as approved by the Graduate
Committee from a selected list.
B. Scientific Bases of Physical Education: This emphasis is designed for those who wish to concentrate their study in one of the subdisciplines of physical education. This emphasis is available only on the thesis option.
Required:
Physical Education: 42:290; at least two courses from among 42:222; 42:251; 42:253; 42:255.
Measurement and Research: 25:180 or equivalent.
One course in a related discipline pertinent to the student's area of interest.
Electives as approved by the Graduate Committee from a selected list.
C. Cardiac Rehabilitation: This emphasis is designed for those who plan to seek American College of Sports Medicine certification in cardiac rehabilitation.
Required:
Health: 41:255.
Physical Education: 42:253; 42:272; 42:275; 42:289 (related seminar); 42:290.
Measurement and Research: 25:180 or equivalent.
Electives as approved by the Graduate Committee from a selected list. Electives for this emphasis will be largely determined by certification considerations.

## Major in Physics

Two emphases are available.
Physics Teaching - Secondary. The program is for high school teachers, and 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 uniess the student has a large number of undergraduate credits in physics.

Physics Teaching - Community College. Professional Core B or a departmentally-approved core is required. However, Professional Core B must be taken by students who do not hold (or who are not eligible to hold) an Iowa Professional Certificate endorsed for Community College Teaching, or its 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 required $82: 200$ unless a suitable undergraduate course is approved as a substitute.

The following physics courses may not be used for credit in this major: 88:120, 88:157, and 88:158.

Attention is also called to the Chemistry-Physics Teaching emphasis program available under the Science Major for the Master of Arts degree. Students may inquire at the Physics Department office for information on this program.

## 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: Political Science: 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 individual needs and in consultation with the student's adviser and graduate committee.

All students must take a final comprehensive examination, both written and oral.

## Major in Sclence

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.

A chemistry-physics teaching program is available with this major. Detailed information may be secured in the Chemistry Department office or the Physics Department office.

## Major in Science Education

This major requires as a prerequisite a bachelor's degree (teaching preferred) with a major in science or in a specific science discipline. The requirements for teaching certification must be fulfilled by the completion of the program.

This major is available on both the thesis and non-thesis options. Required:

Science and Science Education: 82:200; 82:213; 82:290; 82:294.
Measurement and Research: 25:205.
Thesis Option ( 33 hours required):
Science and Science Education: 6 hours of 82:299.
Ten hours from the disciplines of biology, chemistry, earth science and physics.
Six hours of electives from education and science.
Non-Thesis Option ( 35 hours required):
Science and Science Education: 3 hours of 82:299.
Thirteen hours from the disciplines of biology, chemistry, earth science, and physics.
Eight hours of electives from education and science.
Inquiries for additional information concerning this major, including assignment of an adviser and advisory committee, should be made to the chair of the Science Education Faculty or the Dean of the College of Natural Sciences.

## Major in Science Education for Elementary Schools (K-6)

This major requires as a prerequisite a bachelor's degree (teaching) with a major in elementary education. It is available on both the thesis and non-thesis options.

Required (14 hours):
Science and Science Education: 82:130; 82:200; 82:213; 82:290; 82:294.
Elementary and Middie School/Junior High: 21:242.
Requirements in science content:
Thesis option: 10 hours from the disciplines of biology, chemistry, earth science, and physics.
Non-thesis option: 12 hours from the disciplines of biology, chemistry, earth science, and physics.
Requirements in advanced education:
Thesis option: 6 hours from the courses listed below.
Non-thesis option: 8 hours from the courses listed below.
Educational Psychology: 20:214.
Elementary and Middle Schoo/Junior High: 21:141; 21:212.
Measurement and Research: 25:180; 25:205
Requirements in research:
Thesis option: 6 hours of -
Science and Science Education: 82:299 (Research).
Non-thesis option: 3 hours of -
Science and Science Education: 82:299 (Research).
Total required hours for major: 36 for thesis option or 37 for nonthesis option.

## Notes:

1. The science content courses must be such that when combined with prior work the student has a broad background in the various science disciplines (biology, chemistry, earth science, physics). If the student's background is very limited, additional course work at a level lower than 100 g may be required by the advisement committee.
2. The student may substitute in each of the categories "science content" and "science education" up to 3 credit hours from $8 \mathrm{x}: 133 \mathrm{~g} ; 8 \mathrm{x}: 233,8 \mathrm{x}: 285,8 \mathrm{x}: 286,8 \mathrm{x}: 297$, and $82: 270$. Such substitutions must be approved by the Science Education Faculty.

## 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 of which should be her/ his emphasis, from the following departments:

Economics
Geography
History
Political Science
Psychology
Sociology and Anthropology
Inquiries for additional information on this major should be directed to the graduate coordinator of social science, College of Social and Behavioral Sciences, or to the Dean of the Graduate College.

## Major in Socioloty

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:

Sociology: 98:200; 98:201; and two of the following three courses; 98:160, 98:165, 98:174.
Electives: 6-12 hours in sociology with 3 of these hours at the 200 level; 0-6 hours in approved electives outside sociology.
A reading knowledge of a foreign language is recommended.

Comprehensive examinations, written and/or oral, are required.
Students entering graduate study in this department should have taken the following courses or should be able to demonstrate competency in them:

Sociology: 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 $30-32$ semester hours is required for either option. Half of the course work taken ( 12 hours for the thesis option, 15 hours for the non-thesis option) must be at the 200 level. In the case of the non-thesis option, a research paper must be approved by the candidate's committee and filed with the Department of Modern Languages before the comprehensive examinations may be taken.

## Required:

a minimum of 8 hours in literature courses;
a minimum of 8 hours in linguistics, grammar and/or translation courses;
one course in civilization or culture (unless previously met).
The remainder of the program will be determined by the students needs in consultation with her/his adviser. No more than 6 hours in Translation or 6 hours in Interpreting may be applied toward this major
Note: 70:195 is required for all M.A. candidates unless exempted for the following reasons: 1) the student has completed a similar course elsewhere, or 2) the student submits proof of having written a success research paper; the course will not count toward the $30-32$ hours required of this major.

## Major in Speech-Language Pathology

This major is available under two plans ( $A$ and $B$ ), both of which haw the following requirements in common. These requirements includ both graduate and undergraduate courses considered essential to certi. cation and the master's degree. Starred (*) courses will normally have been completed at the undergraduate level; if not, the student and departmental graduate academic adviser will determine how such deficiencies will be remedied.

Required:
Communicative Disorders: *51:010; *51:105; *51:106; *51:111 *51:125; *51:127; *51:135; *51:150; *51:155; *51:156 *51:157; *51:165; *51:195; *51:196; 51:130; 51:230; 51:240; 51:241; 51:246; 51:249; 51:255; 51:258; 51:275; 51:289; 51:290 (Seminar in Articulation Disorders); 51:291; 51:299 (1-3 hours credit for non-thesis option; 6 hours credit for thesis option).
Physics: *88:008.
Measurement and Research: *25:180.
The student, in consultation with herhis adviser, must choose courses designed to meet the American Speech-Language-Hearit Association academic requirements for the Certificate of Clinical Cont petence. Recommendation for clinical certification will be given only upon completion of all academic requirements.

In addition to the above courses, the student must complete a minimum of 300 hours in supervised clinical practicum, with a minimum of 150 of these hours at the graduate level.

The major may be completed with either a thesis or non-thesil option, but a thesis will be permitted only with the approval of the department.
Phan A. For this plan, based on satisfactory completion of an undergraf uate degree in speech-language pathology - teaching, course work an: clinical assignments will take three semesters and one summer (or longer if it is in the best interest of the student's career choice). The nonthesis option will require 40 semester hours, the thesis option 37 semester hours.

The professional program in speech-language pathology is a program for both undergraduate and graduate courses leading to a Master of Arts degree. 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-Language Pathology Major - Teaching, must meet all the requirements for admission to graduate work at UNI, and complete all other requirements for the master's degree.

The successful completion of the undergraduate major or its equivalent will be considered adequate preparation for application to the graduate program. If there are deficiencies in undergraduate preparation, the departmental graduate academic adviser will determine how such deficiencies will be remedied in consultation with the student.
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:

Communicative Disorders: 51:195; and
Teaching: 28:250.
If the student's undergraduate major was other than speechlanguage pathology, the student must complete the department's undergraduate major sequence plus any other deficiencies prior to applying for acceptance to the graduate program.
Major in Teaching English to Speakers of Other Languages (TESOL)

All students who have not had the following courses, or the equivalent, must include these courses as part of their graduate major:

Linguistics: 63:130; 63:154; 63:156; 63:192; 63:194.
Students selecting the non-thesis option are strongly recommended to take 6 hours of education and/or psychology, chosen to meet their individual needs.

Before being admitted to graduate degree candidacy, students are required to meet with a department committee for a Candidacy Interview. Students should arrange with the Coordinator of TESOL and Linguistics to complete this interview during the first semester of their course work. The departmental Candidacy Interview Committee may require a candidate to complete course work in addition to the minimum of 30 semester hours required for a master's degree. In such cases, these hours will be specified at the time of the interview.

Required:
Linguistics: 63:292; 63:295; 63:297. 63:280 to be taken each semester offered up to a maximum of 3 semester hours credit.
Candidates for this degree program must achieve a cumulative grade point average of at least 3.00 for all courses taken in the Department of English Language and Literature.

Native speakers of English must demonstrate proficiency in another language by earning at leasta $C$ grade in a second-semester, college-level course or by passing a specifically designed examination. Intemational students must have achieved a TOEFL score of 600 , or the equivalent, in order to demonstrate their proficiency in English. An international student may be required to take additional English as a Foreign Language courses at the discretion of the TESOL and linguistics faculty. Work taken to satisfy the language proficiency requirements does not count toward the 30 semester hours required to complete the major program.

Students on the non-thesis option are required to complete a comprehensive examination.

Students who wish certification to teach should request information concerning certification requirements from the College of Education, University of Northern Iowa, or from the Department of Public Instruction in the state in which they plan to teach.

## 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 her/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 VocationalTechnical Education Supervision and Administration must have credit in the following courses (or their equivalents): 33:101; 33:181; 31:191; and $33: 193$. These courses do not apply for credit on the major.

## Emphasis in Vocational-Technical Teaching

Required:
Educational Administration: 27:250.
Industrial Technology: 33:214; 33:270 (6 hours); 33:292; 33:297. Computer Science: 81:102.
Electives as approved by the department from a selected list.
Emphasis in Vocational-Technical Education Supervision and Administration

Required:
Management: 15:101 or $15: 105$; 15:165 or 15:184; 15:262.
Educational Psychology: 20:214.
Educational Administration: 27:252.
Industrial Technology: 33:226; 33:270; 33:292.
Computer Science: 81:102.
Electives as approved by the department from a selected list.

## Emphasis in Industrial Supervision and Management

Required:
Computer Science: 81:102.
Management: 15:181; 15:262.
Industrial Technology: 33:187; 33:270; 33:292; 33:299.
Economics: 92:135 or 92:139 or 92:141 or 92:160.
Electives as approved by the department from a selected list.

## Major in TESOL/Modern Languages

The major is normally available on only the non-thesis basis. A minimum of 31 semester hours is required. The student who has not completed 7x:101 and either 63:130 or 63:125 (or the equivalent) before entering the master's degree program must add these courses to the requirements stated below. There is no separate modern language requirement.

Required:
Linguistics: 63:192; 63:194; 63:292; 63:297; at least one semester of $63: 280 ; 63: 256$ or $63: 285$ or $63: 295$; for a total of 16 hours.
Required:
One of the following language emphases for a minimum total emphasis of 15 hours of which 6 hours must be at the 200 level.

## French:

French: 72:124 or 72:125; 72:180 or 72:203 or 72:207. Languages: 70:190.
Plus course(s) approved by the graduate French adviser.

## German:

German: 74:123; 74:180; 74:203.
Languages: 70:190.
Plus course(s) approved by the graduate German adviser.

## Spanish:

Spanish: 78:123 or 78:140 or 78:152; 78:107 or 78:180 or 78:185 or 78:195; 78:203 or 78:205.
Languages: 70:190.
Plus course(s) approved by the graduate Spanish adviser.
Note: International students must have achieved a TOEFL score of 600 or the equivalent in order to demonstrate their proficiency in English. An international student may be required to take additional English by attending 63:105 or 63:106 at the discretion of the TESOL and Linguistics faculty. Neither 63:105 nor 63:106 may be counted for credit on the TESOL and Modern Language program.

This major does not make one eligible for certification to teach.
This major is offered cooperatively by the Department of English Language and Literature and the Department of Modern Languages, and is under the jurisdiction and supervision of the heads of these two departments.

## Major in Translation and Interpretation (Spanish/English)

Primarily an MA. program dealing with the manipulation of linguistic skills, this major is offered on the non-thesis option. This program is not appropriate for students planning to pursue traditional doctoral studies.

There are two versions of this program: one for native English speakers and another for native Spanish speakers. Those whose native language is neither Spanish nor English will determine, in consultation with an adviser, which track is appropriate.

Prerequisites: (lf the student has not already had these courses or their equivalents, they must be added to the program requirements for the appropriate group):

For native English speakers:
Spanish: 78:101;
One upper-level Hispanic literature course.
For native Spanish speakers:
TOEFL 550 or equivalent;
English Language and Literature: 62:104 or 62:105;
One upper-level English literature course.
Required: a minimum of 45 credit hours, at least 20 of which must be at the 200 level, as detailed below. (The amount of 45 credit hours may be reduced by as many as 7 credits if evidence is presented to substantiate that these courses, or their equivalents, have been successfully completed at the undergraduate level.)
The remainder of the program is to be distributed as follows:
For native English speakers:
Languages: 70:181.
Spanish: 78:201; 78:220; 78:225.
Linguistics: 63:130.
For native Spanish speakers:
Languages: 70:181.
English: 62:234 or 62:260.
Linguistics: 63:130.
Spanish: 78:220; 78:225.

This program involves three distinct cultures: Spain, Spanish Amer ca and the United States. At least two courses (at least one in each of th two non-native cultures) from the following:

For native English speakers:
Spanish: 78:123; 78:140; 78:152.
For native Spanish speakers:
Spanish: 78:123; 78:140; 78:152.
History: 96:116; 96:124; 96:147.
At least two courses from the following:
For native English speakers:
Languages: 70:180; 70:230.
Spanish: 78:107;* 78:185*.
For native Spanish speakers:
Languages: 70:180; 70:230.
Spanish: 78:107;* 78:185*.
*May be taken only once for credit. 78:107 may not be taken for credí after 78:220; 78:185 may not be taken for credit after 78:225.

At least 17 credit hours from among the following:
For native English speakers: Linguistics: 63:192.
Spanish: 78:161; 78:180; 78:195; 78:205; 78:282; 78:299.
For native Spanish speakers:
Linguistics: 63:154; 63:156; 63:192; 63:254 or 63:256. Spanish: 78:195; 78:282; 78:299.
Comprehensive Ereminations: A research paper relevant to the contery of the program must be approved by the candidate's M.A. committee an filed in the departmental office before comprehensive examinations mul be taken.

The comprehensive examination committee will consist of three faculty members, at least two of whom must be in the Spanish section

The comprehensive examination will consist of two parts, written and oral.

## Major in Two Languages: French/German, Spanish/French, German/Spanish

The Two-Languages Major is available on both the non-thesis and thesis options, as follows:
Non-Thesis: A minimum of 32 semester hours of course work with a minimum of 16 hours in each of the target languages is required. 0 these, at least 8 semester hours in each language must be at the 200 level.
Thesis: In addition to 6 semester hours of credit for the thesis, a minimum of 26 semester hours of course work with a minimum of 13 hours in each of the target languages is required. Of these, at least 7 semester hours in each language must be at the 200 level.

Required: (for both options) in each language:
a 200 -level course in literature;
a 200-level course in linguistics; and
a course in culture and civilization.
The student's program will be planned in consultation with her/hi adviser.
Note: 70:195 is required for all M.A. candidates unless exempted for the following reasons: 1) the student has completed a similar course elsewhere, or 2) he/she submits proof of having written a successful research paper; the course will not count toward the $30-32$ hour required of this major.

## Master of Arts in Education Degree

This degree is designed for students whose work is primarily in professional education. 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. Detailed information for each program and specific requirements for each major may be obtained from the head of the department offering the major. These include:

```
Department of Curriculum and Instruction
    Computer Applications in Education
    Early Childhood Education
    Education of the Gifted
    Educational Media
    Elementary Education
    Elementary Reading and Language Arts
    Middle School/Junior High School Education
    Reading Education
    Secondary Reading
Department of Educational Administration and Corunseling
    College Student Personnel Services
    Elementary Principalship
    School Business Management
    School Counseling
    Secondary Principalship
    Department of Educational Paycholog and Foundations
    General Educational Psychology
    Teaching
Department of Special Education
    Special Education
```

Although a special curriculum is not available for supervisors of student teaching, a student can arrange a program to qualify for such a position.

## 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. 110-113.

Many programs at this level carry with them the requirements for certificate endorsement. In some cases, the student may be building up competency in a field in which he/she 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 her/his adviser and the departmental committee, may plan the graduate program which will best meet the student's individual needs.

## Department of Curriculum and Instruction

## Major in Computer Applications in Education

Completion of this major will enable an individual to provide leadership in the use of computer technology in educational settings. Certification in an educational area is a required prerequisite to completion of the major. Students may pursue either the thesis or non-thesis option. A minimum of 30 semester hours is required for this program as follows:

## Required: Professional Core A:

Measurement and Research: 25:205 (3 hrs.). Educational Psychology: 20:214 (3 hrs.) andlor Social Foundations: 26:234 (3 hrs.).

Required:
Educational Media: 24:205 (3 hrs.); 24:232 (2 hrs.); 24:240 (3 hrs.); 24:260 (2-3 hrs.) or 24:297 (2-3 hrs.).
Educational Administration: 27:235.
Computer Science: 81:251.
Required:
Educational Media: 24:299 (thesis - 6 hrs .; non-thesis -2 hrs .)
Required: a minimum of 7 hours of approved electives consisting of 5-6 hours in computer technology or educational applications of computer technology and 2-3 hours in curriculum or instructional development. Note: credit earned in 24:299 can be counted in this program component.

## Major in Early Childhood Education

This major is structured to increase the student's competence in working in educational programs for children from birth through seven years of age, and is designed to prepare teachers, directors, consultants, and supervisors for various educational programs such as day care centers, public and private nurseries/pre-schools, and kindergartens. The student must hold Endorsement 10 or 53 prior to the completion of this major. In addition to the Professional Core, the major requires the following:

Required:
Elementary and Middle School/Junior High: 21:255; 21:201; 21:214; 21:221; 21:289 (Early Childhood).
Home Economics: 31:252.
Electives to complete the minimum total of 30 semester hours will be selected with the approval of the adviser and departmental Graduate Board.

## Major in Education of the Gifted

The student must be fully certified to teach in the elementary or secondary schools upon completion of this program.

The Professional Core, 25:205 and 20:214 or 26:234 or the equivalent, plus two years of teaching experience and permission of the head of the Department of Curriculum and Instruction, are prerequisites for entering the program core.

Required program core:
Elementary and Middle School/Junior High: 21:254; 21:255; 21:299.
Measurement and Research: 25:282.
Electives from a suggested list: these electives must be selected in consultation with the student's graduate adviser.

## Major in Educational Media

This major is designed to prepare educational media specialists for a variety of professional positions ineducational settings, including: school building level, school district level, vocational-technical school, community college, and university. The student must hold certification valid foreither elementary or secondary school teaching to meet 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 38 semester hours on either option.

Required:
Educational Media: 24:101; 24:131; 24:230; 24:235; 24:240; 24:289; 24:297; 24:299.
Measurement and Research: 25:294.
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Electives - 9 credit hours are required from the following:
Educational Media: 24:105; 24:130; 24:138; 24:145; 24:147; 24:148; 24:150; 24:151; 24:152; 24:155; 24:157; 24:205; 24:260; 24:285; 24:286.

## Major in Elementary Education

The student must be fully certified to teach in the elementary school prior to the completion of the major. In addition to the common Professional Core, the student must complete an elementary education core and the requirements for one of the following four emphases within the major: General Curriculum, Mathematics, Science, and Social Studies.

The program is designed to strengthen the student as an elementary teacher in the major areas of the curriculum or to permit the student to specialize in one content area in order to function as a team leader or as a more effective teacher in a departmentalized system.

Required elementary core:
Elementary and Middle School/Junior High: 21:201; 21:289.
Required emphasis (select one):
General Curriculum:
Elementary and Middle School/Junior High: 21:242; 21:243.
One course from:
Elementary and Middle School/Junior High: 21:141 or Mathematics: 80:280.
And an advanced course in elementary reading.

## Mathematics:

Elementary and Middle School/Junior High: 21:141.
A minimum of 5 hours from:
Mathematics: $80: 235 ; 80: 280 ; 80: 281 ; 80: 292 ; 80: 295$.
Science:
Elementary and Middle School/Junior High: 21:212; 21:242.
Science and Science Education: 82:130.
$2-4$ hours in advanced course in science to fulfull individual needs.
Social Studies:
Elementary and Middle School/Junior High: 21:213; 21:243.
4-8 hours in advanced social studies courses.
Electives to complete the program as approved by the student's adviser and the departmental Graduate Board.

## Major in Elementary Reading and Language Arts

The student must be fully certified as an elementary teacher (Endorsement No. 10) prior to completing this major.

Required if not completed on the undergraduate level:
Educational Psychology: 20:100.
Reading and Language Arts: 23:044; 23:110; 23:111; 23:113; 23:140.
Required courses:
Core A (25:205 and 20:214 or 26:234).
Reading and Language Arts: 23:144; 23:210 or 23:212; 23:250; 23:289 (two seminars are required for a total of 4 hours); 23:290.
3-6 semester hours elected from related studies in linguistics, library science, art, music, physical education, English literature; communication and theatre arts, and communicative disorders.
Electives to complete the program, selected in consultation with the student's graduate adviser.

## Major in Middle SchoolJunior High School Education

This major is offered on either the thesis or non-thesis option, and requires completion of a minimum of 30 semester hours (additional hours may be required, depending upon the student's background and needs). Certification to teach the young adolescent is required before entering the major. The program is designed to aid the classroom teacher to become more effective in teaching the young adolescent child by strengthening the individual's professional competencies in instruc-
tional areas and through greater familiarity with the unique nature of young adolescents and the emerging programs in this area. Professional Core A is required for this major.

Required for a minimum of 11 hours:
Elementary and Middle School/Junior High: 21:270; 21:289 (2 hours).
Educational Psychology: 20:116 or 20:235.
Educational Psychology: 20:141 or
Social Foundations: 26:126.
Reading and Language Arts: 2 hours in an advanced course in reading and language arts (23:xox), preferably 200 level.
Required emphasis: minimum of 9 hours in cognate area of study in a subject area field or academic discipline.
Electives to complete the program: selected by the student in consultation with adviser and approved by the departmental graduate board.

## Major in Reading Education

This major satisfies the course requirements relative to lowa standards for endorsement as a reading clinician (No. 38). In order to be recommended for this degree, the student must have completed requirements for certificate endorsement as an elementary teacher (No. 10) or a secondary teacher (No. 20).

Required if not completed on the undergraduate level:
One course in the psychology of human development.
One course in children's or adolescent literature.
One course in tests and measurement.
One course in elementary reading methods, secondary reading methods, or
Reading and Language Arts: 23:134; 23:140; 23:147; 23:192.
Required:
Core A:
Measurement and Research: 25:205.
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Reading and Language Arts: 23:289 (2 hrs.); 23:290 (two practicum areas required for a total of 4 hours); 23:299 (26 hrs.).
Electives: up to 6 hours in related course work.
Students who complete this program and have at least two years of teaching experience will qualify for certificate endorsement (K-12) as a reading clinician (No. 38).

Students who complete this program and also meet the followind requirements will qualify for certificate endorsement (K-12) as a readin' specialist (No. 54).

1. Four years of teaching, including at least one year as a readind teacher.
2. Course work in both elementary and secondary reading methods,
3. Course work in the psychological development of both childrent and adolescents.
4. Course work in both children's and adolescent literature.
5. One additional seminar (23:289) on the topic of administration ar supervision of reading programs.
6. One additional practicum (23:290) providing experience in the supervision of reading programs.


## Major in Secondary Reading

The student must be certified as a secondary teacher prior to completing this major. The program is designed to prepare teachers in the areas of corrective and developmental reading in the junior and senior high school. Prerequisites required if not completed on the undergraduate level:

Educational Psychology: 20:116 (2 hrs.).
Reading and Language Arts: 23:130 (3 hrs.); 23:140 (3 hrs.); 23:147 (3 hrs.); 23:192 (2-3 hrs.)
Measurement and Research: 25:181 (3 hrs.)
English Language and Literature: 62:165 (2 hrs.)
Required:
Reading and Language Arts: 23:210 (3 hrs.); 23:212 (3 hrs.); 23:289 (2 hrs.); 23:290 (2 hrs.)
*Electives as approved by adviser.
Students who complete this progam may qualify for certificate approval as a reading teacher by completing:

1) a course in linguistics; and
2) a course in speech.

Graduates of this program will qualify for certificate endorsement ( $\mathrm{K}-12$ ) as a reading clinician (No. 38) by completing:

1) two years of teaching experience;
2) a course in elementary reading methods; and
3) Reading and Language Arts: $23: 238$ and $23: 240$.

Completion of the following requirements will qualify a graduate of this program for certificate endorsement ( $\mathrm{K}-12$ ) as a reading specialist (No. 54).

1) four years of teaching experience, including one year as a reading teacher,
2) a course in elementary reading methods;
3) a course in psychology of human development;
4) a course in children's literature; and
5) Reading and Language Arts: 23:238; 23:289 (Administration and Supervision of Reading Programs); 23:290 (Supervision).

## Department of Educational Administration and Counseling

## Major in College Student Personnel Services

This major requires a minimum of 34 semester hours.
Required:
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Measurement and Research: 25:205.
Educational Administration: 27:250 or 27:252.
Counseling: 29:105; 29:124 or 29:220; 29:230; 29:289
College Student Personnel Services ( 2 hours);
29:289 Counseling and Student Problems (2 hours);
29:290 Practicum (two areas required for 6 hours)-
College Counseling Services
College Student Activities
College Student Housing
Student Personnel Administration

## Six hours from:

Measurement and Research: 25:180; 25:181; Educational Administration: 27:250; 27:252; 27:260;
Counseling: 29:110; 29:125; 29:203; 29:205; 29:226; 29:227; 29:240; 29:299 (1-2 hours); or a course in computer.
Certificate to teach is not required for this major.

## Major in Elementary Principalship

The student must complete the usual degree and certification/ endorsement requirements and must complete a minimum of one year of successful teachingappropriate to the major prior to graduation. Four years of specific area teaching is required for endorsement.

In addition to the general requirements, a student will be required to complete:
Educational Administration: 27:201;27:204;27:212;27:220;27:221; 27:230.
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.
Course electives.

## Major in School Business Management

This major is offered by the Department of Educational Administration and Counseling under both the thesis and non-thesis options. A minimum of 30 semester hours is required for this program as follows:

Required: Educational Administration: 27:201; 27:230; 27:240; 27:243.
Electives as approved by chairperson.

## Major in School Counseling

Students completing this program will be eligible for K-12 certification in School Counseling. Students must have successful teaching experience.

This major requires a minimum of 54 semester hours.
Required
45 hours
Educational Psychology: 20:214.
Educational Psychology: 20:142 or
Psychology: 40:125.
Educational Psychology: 20:235 or
Home Economics: 31:252.
Counseling: 29:103; 29:105; 29:124; 29:125; 29:150; 29:210; 29:220; 29:226; 29:227; 29:228; 29:254; 29:289.
Measurement and Research: 25:205.
Required Practicum and Internship .................. 9 hours
Counseling:
29:290 Practicum - School Counseling (3 hrs.)
Internship - School Counseling ( 6 hrs .)
54 hours

## Major in Secondary Principalship

The student must complete the usual degree and certification/ endorsement requirements and must complete a minimum of one year of successful teaching appropriate to the major prior to graduation. Four years of teaching is required for endorsement.

In addition to the general requirements, a student will be required to complete:

Educational Administration: 27:201;27:204; 27:226; 27:227;27:22 27:230.
Practicum in an appropriate area.
A course in child growth and development, guidance and counselin educational psychology, or in the area of the exceptional child
Course electives.

## Department of Educational Psychology and Foundations

## Major in General Educational Psychology

This major is planned as follows: to prepare community college personnel to teach preprofessional teacher-education courses; for pere sons who want to pursue a terminal degree in educational psycholosy/ and for those who are working in community, governmental, and human service occupations. A student who expects to teach in college should take - Educational Administration: 27:250 and 27:252.

This major consists of a graduate common professional core that includes 20:214 Foundations of Instructional Psychology ( 3 hrs ) 25:205 Educational Research ( 3 hrs .), and 26:234 Philosophy of Educe tion (3 hrs.).

Required educational psychology core:
Minimum of 9 hours from the following -
Educational Psychology: 20:100 or 20:116; 20:109; 20:139; 20:140; 20:142;
Measurement and Research: 25:181.
Required: completion of 9 hours in one of two emphases.*
Electives: a minimum of 6 hours selected with approval of adviser

## -Emphases:

## Development and Learning:

Educational Psychology: 20:210; 20:230; 20:235; 20:289 (Education and Psychology) or 20:290 (Education and Psycholody),

## Evaluation:

Educational Psychology: 20:193.
Measurement and Research: 25:180; 25:270.
Educational Psychology: 20:290 (Education and Psychology) or Measurement and Research: 25:289 (Evaluation and Research).

## Major in Teaching

This major is designed to serve the professional needs of experienc teachers. It consists of a graduate common professional core that includes 20:214 Foundations of Instructional Psychology ( 3 hrs.) 25:205 Educational Research ( 3 hrs .), and 26:234 Philosophy of Educh tion ( 3 hrs.), and a minimum of $8-12$ hours from each of the three professional components as follows:
Required - a minimum of 30 semester hours as
follows:
Component I: Advanced professional course work . . 8-12 houn
Component II: Theoretical-philosophical course work

8-12 hount
Component III: Advanced academic course work in one department

8-12 houn
A student may use one of two common professional core courses either $20: 214$ or $26: 234$, to fulfill three hours of the Component I requirements. A program of studies must include a minimum of third semester hours.

## Department of Special Education

## Major in Special Education

The student must be fully certified to teach in either the early childhood, elementary, or secondary school (depending on the major chosen) prior to completing a major in this area.

Competency is required through examination or the following courses:
Educational Psychology: 20:100 or 20:116 (whichever is appropriate);
and Special Education: 22:150.

## Required:

Professional Core A.
Competence through examination or course work at either the graduate or undergraduate level in:

Special Education: 22:170; 22:171; 22:174, and 6 semester hours of 22:192 from tutorial, profound, pre-academic preschool, primary, intermediate, or secondary.
Competence demonstrated through proficiency evaluation or course work at the graduate level in:

Special Education: 22:184, 22:252, and 22:290, which must be taken concurrently. (For students on the Field Specialization emphasis who have special education teaching experience, this will be replaced by 22:240, 22:245, and 22:290.)
Emphases: The student may choose one of the following five emphases, and competency may be demonstrated through proficiency evaluation or course work.

## 1) Elementary:

Required:
Special Education: 22:180; 22:182; 22:289 and 22:290 (taken concurrenty).
Reading and Language Arts: 23:147; 23:192.
2-6 hours of electives from a selected list.
2) Freld Specialisation:

Prerequisite: teacher certification with appropriate disability approval.
Note: No additional teaching certification endorsements or disability approvals can be requested through this emphasis program.
Required:
Special Education: 22:289 and 13 hours of electives to be selected and approved by the adviser and program committee.
3) Preschool Handicapped:

Required:
Special Education: 22:153; 22:183; 22:187; 22:289 and 22:290 (these two courses taken concurrently).
Elementary and Middle School/Junior High: 21:292;* 21:221.
Required only for those with preschool handicapped endorsement and teaching experience (and to be taken concurrently): Special Education: 22:240; 22:245; 22:290.
${ }^{\text {Required for students who do not hold the Early Childhood }}$ Education Endorsement 53 or the Preschool Handicapped Endorsement.
4) Secondary:

Required:
Special Education: 22:181; 22:182; 22:251, 22:289, and 22:290 (taken concurrently); and $6-10$ semester hours of electives from a selected list.

## 5) Severely Handicapped:

Required:
Special Education: 22:153; 22:165; 22:183; 22:187; 22:289 and 22:290 (taken concurrenty); and 2-5 semester hours of electives from a selected list.

## Educational Strategist/Teaching Consultant Program

The special education offerings include an approval 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 recommended for this approval, a student must have completed an acceptable master's degree (in special education or the equivalent), 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.

A total of $31-33$ semester hours is required as follows:
Phase I - required:
Special Education: 22:170; 22:174; 22:192 (Tutorial).
Phase II - required:
Special Education: 22:171; 22:192 (Group); and two from the following - 22:180, 22:181, 22:183, $22: 187$.
Also required:
Special Education: 22:240; 22:245; 22:289 (2 hours); 22:290.

## 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, sciences, 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 responsibilities; 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 of business administration.

Admission to the Master of Business Administration program is dependent upon the quality of the applicants's undergraduate record, the score on the Graduate Management Admission Test, and expressive skills demonstrated on the addendum to the application. The GMAT must be taken prior to acceptance into the program.


## Major in Business Administration

This major is 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 an undergraduate degree in an area other than business will be required to complete the undergraduate business core curriculum. Candidates for the degree are also required to submit a research paper and pass a comprehensive examination in the last semester of the program.

Required:
Accounting: 12:262.
Marketing: 13:263.
Management: 15:262; 15:263; 15:266; 15:267; 15:289 (Seminar - Business Policy - 3 hours).

Economics: 92:160.
Electives: a minimum of 6 hours.
Detailed information for the M.B.A. may be obtained from 335 Seerley Hall, School of Business, UNI.

## Master of Music Degree

Students wishing to take a course for graduate credit in the Schoc of Music or wishing to pursue a degree program in this departmen should consult with the Graduate Coordinator for Music Program prior to registration for the course. Detailed information concernin requirements and procedures will be provided, and specific evidence previous accomplishments will be reviewed.

The Master of Music degree is a professional degree designed $t$ prepare the graduate for: 1) a college or secondary school teachin career, 2) a performance career as a professional musician or compose or 3) further graduate work at the doctoral level. The following major are offered:

Composition
Conducting
Music Education
Music History
Performance
An applicant for a graduate degree program in the School of Musi should possess the baccalaureate degree in music or a demonstrate equivalent. The student should have attained a high degree of proficiem cy in one or more of the following areas: performance, theory-compos tion, music education, music history. In addition to the commo regulations and requirements applicable to all master's degree pro grams, the following are required for admission to the specific major

Composition majors: portfolio and, if possible, tape recordings compositions.
Conducting majors: in-person audition and interview.
Music History majors: scholarly paper.
Music Education majors: in-person interview with Graduate Coor dinator.
Performance majors: in-person audition (a tape recording would accepted if the in-person audition would pose undue hardship)
A prospective major must take a written diagnostic examination i the areas of theory and music history, and (if necessary) in the area claimed competency if different from the above (e.g., piano, brass, c woodwind instruments). This examination normally is taken immed ately prior to initial registration as a graduate student. If a student required to take remedial courses to make up any deficiency in prepar tory work, those courses will not be counted toward degree requir ments.

Successful completion of a comprehensive examination is require of all students in this degree program. This examination normally wi take place after the candidate has completed the course work requirt for the degree.

## Major in Composition

This major requires a minimum of 30 semester hours and the completion of a composition recital acceptable to the student's recital committee.
Required:
Graduate Music Core . . . . . . . . . . . . . . . . . . . . . . . 11 hours Music: 52:221.
Music Theory: 58:210; 58:211; 58:212.
One course from the following -
Music Literature and History: 59:110; 59:111; 59:112; 59:114; 59:115.
Specialization:
Applied Music: 54:254 (applied composition) ...... 8 hours
Electives: 11 hours, primarily in the areas of music
literature and theory
11 hours
30 hours

## Major in Conducting

This major requires a minimum of 30 semester hours completed in the following program: Required:

Graduate Music Core
11 hours
Music: 52:221.
Music Theory: 58:210; 58:211; 58:212.
One course from the following -
Music Literature and History: 59:110; 59:111;
59:112; 59:114; 59:115
Specialization. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 11 hours
Music Techniques: 56:221* or 56:222* (6 hrs.).
Music Literature: 59:131, 59:140 or 59:142 (3 hrs.).
Music, Organizations and Ensembles: 2 hours in ensembles* (participation required each semester of residence).
Electives: as approved by adviser . . . . . . . . . . . . . . . . 8 hours
30 hours
Additional requirements: Conducting recital/document; piano proficiency.
*56:221, 56:222, and ensembles not offered during summers.
Major in Music Education
This major is offered on both the thesis and non-thesis options for a minimum total of 30 hours.
Required:
Graduate Music Core . . . . . . . . . . . . . . . . . . . . . . . . . 11 hours
Music: 52:221.
Music Theory: 58:210; 58:211; 58:212.
One course from the following -
Music Literature and History: 59:110; 59:111; 59:112; 59:114; 59:115.
Required specializations:
Music Education and Methods: 57:220; 57:289
(Music Education - 3 hours); plus 8 hours
from one of the following areas.
13 hours
A. Choral-General Area:

Music Techniques: 56:110; 56:122; 56:135.
Music Education and Methods: 57:130; 57:145;
57:148; 57:165; 57:190; 57:240; 57:250;
57:289 (General Music).
B. Instrumental Area:

Music Techniques: 56:121; 56:152.
Music Education and Methods: 57:138; 57:145;
57:155; 57:170; 57:197; 57:250.
Electives:* 6 semester hours approved by Graduate
Coordinator $\qquad$ 30 hours
*Students whose career plans include research activity or graduate work at the doctoral level in music education should pursue a thesis option, in which case the 6 hours of electives shall be in Research, 52:299.
A maximum of 4 semester hours of applied music ( $54: 1 \mathrm{xxg}$ ) may be used as electives on the non-thesis option. The non-thesis option requires the completion of a research paper.

## Major in Music History

This major requires a minimum of 30 semester hours and the completion of a thesis in music history.
Required:
Graduate Music Core ............................. . 11 hours Music: 52:221.
Music Theory: 58:210; 58:211; 58:212.
One course from the following -
Music Literature and History: 59:110; 59:111; 59:112; 59:114; 59:115.
Specialization:
Music Literature: 59:299 (research for thesis - 6
hrs.); 59:1xx (music literature -
7 hrs.)
13 hours
Electives: (maximum of 2 hrs . may be in applied
music).
6 hours
30 hours

## Major in Performance

This major requires the completion of a minimum of 30 hours (an opera emphasis requires a minimum of 32 hours) and a performance recital acceptable to the student's recital committee.
Required:
Graduate Music Core . . . . . . . . . . . . . . . . . . . . . . 11 hours Music: 52:221.
Music Theory: 58:210; 58:211; 58:212.
One course from the following -
Music Literature and History: 59:110; 59:111;
59:112; 59:114; 59:115.
Specialization. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12-14 hours
Applied Music: 54:2xx ( 10 hrs .).
Music Literature: 59:120 ( $2-4 \mathrm{hrs}$.)
Electives: primarily in the areas of theory and music literature

5-7 hours
30 hours
Additional requirements: two successful applied jury examinations (with minimum grade of $B$ ); and for voice majors, demonstrated proficiency in foreign languages.

## Opera Emphasis:

Students desiring an opera emphasis on the Performance major will complete a minimum of 32 semester hours. They may substitute special studies in opera role analysis for $58: 210$ and will register for a minimum of 4 semester hours of Opera/Music Theatre ( $56: 130$ and $56: 131$ ) in place of Performance Literature for Voice (59:120). In addition, they will choose 6 hours from a departmental list of courses (acting, directing, movement, production, for example) in lieu of other electives.

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 specialization <br> 2. Advanced preparation of elementary and secondary teachers <br> 3. Preparation for college training |
| 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 Communication and Theatre Arts, Geography, General Psychology, and Sociology) |
| C. Eligibili's 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 department office <br> 2. On all majors: <br> 25:205 Educational Research - 3 hrs. <br> 20:214 Foundations of Instructional Psychology - 3 hrs. <br> or <br> 26:234 Philosophy of Education <br> 3. On some majors: <br> Teaching experience as specified | 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) <br> Core $A$ <br> (1) 20:214 or 26:234-3 hrs. <br> (2) 25:205-3 hrs., or departmental research course <br> (3) Methods course in major field, or 200 -level course in Education or Teaching Core $B^{* *}$ <br> (1) $27: 250$ Teaching in College -3 hrs . <br> (2) $27: 252$ Current Issues in Higher Educ. - 2 hrs. <br> (3) 297 Practicum -2 hrs. |
| *Except for majors in College Student School Business Management. <br> **Students completing Professional Co may be recommended for Iowa Community | sonnel Services, General Educational Psychology, and 3 with appropriate courses in one or more subject areas College certification. |  |

Master of Business Administration - See p. 129 for specific information.
Master of Music - See p. 130 for specific information.

## Specialist Degree

The requirements concerning candidacy, graduation, scholarship, residence, examinations, and thesis are the same as for the Specialist in Education Degree (See pp. 133-134).

## Major in Sclence Education

A program must include a minimum of 30 hours of post-master's degree credit. For admission to candidacy, the student's program must be approved by the advisory committee and the chairperson of the Science Education faculty. In addition to examinations required for the special ist's degree, this major requires examinations administered by the Science Education faculty.

Each candidate's program will include an emphasis in a particular science discipline that is at least equivalent to an acceptable major on the M.A. program with Professional 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 Calculus I ( 4 hrs.) and computer science through the equivalent of 81:070 Introduction to Programming ( 3 hrs .). (Not all courses taken to meet this requirement will necessarily be eligible for graduate credit.)

Research experience (not necessarily for academic credit) in both laboratory science and science education must be a part of the total postB.A. program. Not more than six hours of research credit may be included in the 30 (or more) hours of post-master's credit. A student who did not complete a thesis for the master's degree must complete one for the specialist's degree.

Information concerning details of the major and emphases is available in the Office of the Dean of the College of Natural Sciences.
Required science - minimum of 30 hours including -
Science and Science Education: 82:200.
Other courses selected from biology, chemistry, earth science, and physics. These hours may incude hours completed on a master's degree. Must include at least 12 hours in science outside the area of emphasis, preferably in two different disciplines.
Required research and related courses - 12 hours
Measurement and Research: 25:180 or
Mathematics: 80:172.
Measurement and Research: 25:205; 25:281.
$8 \mathrm{x}: 299$ Research ( $3-6 \mathrm{hrs}$.)
Required Internship - 3-4 hours
Teaching: 28:250 or
Science and Science Education: 82:297
Required education - 7-9 hours
Educational Psychology: 20:214 or
Social Foundations: 26:234
Two of the following:
Elementary and Middle School/Junior High: 21:212; 21:242.
Measurement and Research: 25:280.
Educational Administration: 27:220; 27:227.
Additional hours, if required, may be selected from:
a) any course listed above but not required;
b) any 100 g - or 200 -level mathematics, computer science, or science course;
c) Educational Psychology: 20:191;

Educational Media: 24:205;
Educational Administration: 27:226.

## 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.

Detailed information for each of the above program areas may be obtained from the department offering the major. These include:

## Department of Curriculum and Instruction

## Reading Education

Department of Educational Administration and Counseling
College Student Personnel Services
Curriculum Coordinator
Elementary Principal
School Business Management
Secondary Principal
Superintendent

## Department of Educational Paychology and Foundations

School Psycholozy

## Department of Special Education

Special Education:
Administration Emphasis
Curriculum Consultant Emphasis
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) the Aptitude Test of the Graduate Record Examination, (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 or her department, the dean of the appropriate college and the Dean of the Graduate College. Normally the student 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 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 parn a minimum of 30 semester hours of graduate credit bevond 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. 112). 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 seven 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, eight (8) semester hours of transfer credit for pastmaster'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. 112.)
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 $C$ is earned.

Candidacy. The requirements for admission to candidacy are described above.

On-Campus Residence. A student must have completed at least 18 hours in residence credit on campus, including one semester or two summer sessions of full-time 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 pasel written comprehensive examination. If required, it should precede the oral examination.
Thesis. A student who did not complete a thesis for the masterts degree must complete one for the specialist's degree. A department mu* require a student who has written a master's thesis to write a thesis fi the specialist's degree also. The thesis must be presented in the style an form prescribed for the master's thesis. It must have the approval of th 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 Research and usually not in one block. The instructor will assign a gra for a semester's registration in Research based upon the progress made, but may assign a Research Continued (RC) if the instructor 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 now? be made until the thesis is near completion. The Dean of the Graduate College may authorize an extension of time for the completion of a Research Continued 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 $R C$ 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 Colleray

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. 113.

Application for graduation. The same regulations apply as for the master's degree. See p. 113.

Attendance at Commencement. The same regulations apply as for the master's degree. See p. 113.

## Requirements For Various Majors

Course work requirements for the Specialist in Education Degree ar defined in terms of a two-year graduate program, including work takeu. 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.

## Department of Curriculum and Instruction

## Major in Reading Education

To be eligible for a degree in this major the student must be certified as an elementary or secondary teacher. This program is designed to prepare teachers to serve as a consultant, coordinator, or supervisor of school reading programs.
Required if not completed on the undergraduate level:
A course in elementary reading methods.
A course in secondary reading methods.
A course in children's literature.
A course in adolescent literature.
Courses in child and adolescent development.
Reading and Language Arts: 23:132; 23:140; 23:147; 23:192.
Measurement and Research: 25:180; 25:181.

## Required:

Educational Psychology: 20:214 or
Social Foundations: 26:234.
Measurement and Research: 25:205.
Reading and Language Arts: 23:210; 23:212; 23:238; 23:289; 23:290;
23:289 (Administration and Supervision of Reading Programs);
23:290 (Supervision of School Reading Programs).
A course in curriculum development.
Two 200-level courses in educational psychology or learning.
6 semester hours of approved electives.
Persons who complete this program and the following requirements qualify for certificate endorsement as a reading clinician (No. 38.):

Two years of teaching experience.
Reading and Language Arts: 23:240.
Persons who complete this program and the following requirements qualify for certificate endorsement as a reading specialist (No. 54):

Four years of teaching experience including one year as a reading teacher.
Reading and Language Arts: 23:240.

## Department of Educational Administration and Counseling

## Major in College Student Personnel Services

This program is designed to qualify an individual for counseling and/ or administrative work in student personnel services in college or university settings.
Required:
Measurement and Research: 25:205.
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Educational Administration: 27:250; 27:252.
Counseling: 29:105; 29:124 or 29:220; 29:230;
29:289 Seminar: Counseling and Student Problems
29:289 Seminar: Student Services
29:290 Practicum (three areas required):
College Counseling Services - 3 hours
College Student Activities - 3 hours
College Student Housing - 3 hours
Student Personnel Administration - 3 hours
Internship - minimum of 6 semester hours.
Electives to be selected in consultation with adviser.
Thesis (1-6 hours).

## Major in Curriculum Coordinator

Must hold a certificate for elementary or secondary teaching prior to completing the program.

Competency is required through examination or the following courses:

Measurement and Research: 25:180; 25:181.
General requirements:
Educational Psychology: 20:214.
Educational Media: 24:131.
Measurement and Research: 25:205.
Social Foundations: 26:234.
Educational Administration: 27:141; 27:204 or 27:210; 27:290.
Plus 8 semester hours of non-professional course work.
Required:
Educational Administration: 27:212; 27:220; 27:226; 27:227.

## Major in Elementary Principal

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 the degree. (Check certification requirements.)
Ceneral requirements:
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Measurement and Research: 25:180; 25:181; 25:205.
Educational Administration: 27:141;27:201; 27:210;27:230;27:240; 27:241; 27:289; 27:290.
One course in educational psychology or guidance.
8 semester hours of non-professional course work.
Required:
Educational Administration: 27:212; 27:220; 27:221.

## Major in School Business Management

This major is offered by the Department of Educational Administration and Counseling. The program is as follows:
Required:
Measurement and Research: 25:205.
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Educational Administration: 27:201;27:210;27:230;27:240;27:241; 27:243.
Electives as approved by the chairperson.

## Major in Secondary Principal

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 the degree. (Check certification requirements.)
General requirements:
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Measurement and Research: 25:180; 25:181; 25:205.
Educational Administration: 27:141;27:201;27:210;27:230;27:240; 27:241; 27:289; 27:290.
One course in educational psychology or guidance.
8 semester hours of non-professional course work.
Required:
Educational Administration: 27:226; 27:227; 27:228.

## Major in Superintendent

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 the degree. (Check certification requirements.)
General requirements:
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Measurement and Research: 25:180; 25:181; 25:205.
Educational Administration:27:141; 27:201;27:210;27:230;27:240; 27:241; 27:289; 27:290.
One course in educational psychology or guidance.
8 semester hours of non-professional course work.
Required:
Educational Administration: 27:220; 27:221; 27:227; 27:228.

## Department of Educational Psychology and Foundations

## Major in School Psychology

The completion of the following courses (or their equivalents) is required in the student's undergraduate preparation. Students who are deficient in any of these courses must make up the deficiency in addition to the specific courses required for the graduate major program:

Educational Psychology/Measurement and Research/Psychology: 40:008; 40:151 or 25:181; 20:142 or 40:125 or 40:142; 20:100 or 20:109 or 20:116; 40:118.
Elementary and Middle School/Junior High: 21:152.
Special Education: 22:150.
Social Foundations: 26:120.
Required minimum program:
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Educational Psychology: 20:194 ( 6 hours); 20:230; 20:240; 20:270; 20:289; 20:290; 20:291 ( 6 hours); 20:299 ( 6 hours).
Measurement and Research: $25: 180 ; 25: 205 ; 25 ; 281 ; 25: 282 ; 25: 283$.
Two approved courses in counseling.
One approved course in speech or language development.
One approved course in reading.

## Department of 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:
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Measurement and Research: 25:205.
Educational Administration: 27:201 or 27:221 or 27:228; 27:141 or 27:204 or 27:210 or 27:212 or 27:226; 27:280.
Special Education: 22:184; 22:252; 22:278; 22:289; 22:290.
Two courses in mental retardation, emotionally disturbed or speech correction.
8 semester hours chosen from non-professional course work.

## Curriculum Consultant Emphasis:

The emphasis prepares the qualified person to serve as a curriculum consuitant for special education in local, intermediate, or state school systems provided that certification standards for such positions are met, including degree, approval, and teaching experience (type and duration) requirements. An adviser should be consulted on the specifics of certification requirements.

To be eligible for this degree, the student must be certified as a teacher of the handicapped upon completion of the program requirements, and the student should consult a department adviser regarding the course work required for this certification if such has not yet been completed. To enter the program, the candidate must have completed at least one year of successful teaching, although more is recommended. Required:

Educational Psychology: 20:214 or
Social Foundations: 26:234.
Measurement and Research: 25:205.
Special Education: to be taken concurrently - 22:240, 22:245 and 22:290; 22:278; 22:289; 22:290.
Educational Administration: 27:230; 27:220 or 27:227; 27:212 or 27:226.
8 semester hours chosen from non-professional course work.

## Doctor of Education Degree

This new program, approved in 1982 and initiated in 1983, is intended to provide practicing educators the opportunity to continu their study and eam the terminal professional degree in their field. Th Ed.D. degree requires a minimum of 60 semester hours of credit beyon? the master's degree. There are three components to the program: 18 semester hours in a Professional Common Core of work in educational foundations, fundamentals, and research; 30-33 semester hours of Adbanced Professional Study in one of six areas of intensive study and a related area; and a dissertation of 9-12 semester hours.

By design, then, all students are required to study in basic areas that undergird and define educational practice and develop skills of problem definition, data collection and analysis, and interpretation. The six areas of intensive study provide for a specialized focus on practice. The six intensive study areas are: Counseling, Curriculum and Instruction, Educational Administration, Reading, School Psychology, and Special Education. (In some areas, it is possible to combine doctoral degree study with work toward an endorsement to perform a particular role in K -12 education.) Brief definitions of the six areas follow.
Counseling: This area of intensive study involves continued development of knowledge and skills of educational professionals who assist others in clarifying, coping with or solving personal, academic, or career dilemmas. (For more information, contact the Head, Department of Educational Administration and Counseling.)
Curriculum and Instruction. This area of intensive study is designed to prepare scholar-practitioners to plan, implement, evaluate, and super vise educational programs for children and adult leamers. (For more information, contact the Head, Department of Curriculum and Instruction.)
Educational Administration. This area of intensive study involves the preparation of personnel for leadership roles in administering and supervising departments, schools, districts, or other educational agencies. (For more information, contact the Head, Department of Educational Administration and Counseling.)
Reading. This area of intensive study is designed to prepare scholarpractitioners to assume leadership roles in reading-language arts programs. (For more information, contact the Head, Department of Curric ulum and Instruction.)
School Psycholodx. This area of intensive study is designed to provide school psychologists with additional theory and practice skills to serve families, children and educators in a leadership role. (For more information, contact the Head, Department of Educational Psychology and Foundations.)
Specin Education. This area of intensive study is designed to provide students with the knowledge and skills to work effectively in leadership positions in special education agencies, residential facilities, or othel agencies that serve disabled individuals. (For more information, contac the Head, Department of Special Education.)

## Admission to Doctoral Study

## Intital Admission

Formal application to doctoral study should be made to the Registra at the University of Northern Iowa. Concurrently, a separate applicatior should be sent to the Office of the Dean of the College of Education Descriptive materials and application packets may be obtained from either office. To be considered for degree status (regular) admission at applicant must submit completed application forms, transcripts of al undergraduate and graduate work, three letters of recommendation an
meet the requirements enumerated below. Additional criteria may be required by the area of intensive study since some previous specialization work is presumed.

1. Hold a master's degree from a regionally accredited institution of higher education.
2. Have three years of appropriate educational experience.
3. Have at least a 3.2 (on a 4.0 scale) grade point average on all previous graduate work.
4. Have a combined score of 1500 or greater on the Graduate Record Examination (GRE) with no score below 460 on any one of the three separate areas: Verbal, Quantitative, Analytical.
5. Have a score of 460 or greater on the Graduate Record Examination Advanced Test in Education.
6. A foreign student applicant must achieve a score of at least 550 on the Test of English as a Foreign Language (TOEFL) examination.
The three letters of recommendation should come from individuals familiar with the applicant's potential for advanced professional studies, at least one from a professor familiar with the applicant as a graduate student and at least one from an educational employer/supervisor.

Provisional degree status may be recommended for an applicant who does not meet all of the requirements or for whom if it is felt that further graduate course work or professional experience would be useful in making the admission decision. An individual admitted to provisional degree status must be formally reconsidered for regular admission and course work completed during that time must be subsequently approved by an appropriate faculty committee before it may be applied to a degree.

## Candidacy Status

Soon after regular admission, an adviser and an advisory committee will be appointed for each student by the Dean of the Graduate College. In most instances the adviser (and chairperson of the advisory committee) will be from the student's area of intensive study. Prior to the completion of twelve semester hours of course work toward the doctorate at the University of Northern Iowa, the student will meet with this committee, convened by the adviser, and develop a program of study for submission to the Graduate College. Approval of the program of study will signify admission of the student to candidacy status.

## General Regulations

1. Scholarship. A cumulative grade point average of 3.0 or above (on a 4.0 scale) must be maintained for all course work taken toward the Doctor of Education Degree at the University of Northern Iowa. No more than six (6) semester hours of C credit ( $\mathrm{C}+, \mathrm{C}, \mathrm{C}-$ ) earned within the program of study may be applied toward credit for graduation.
2. Recency of Credit. Courses taken more than seven years prior to the granting of candidacy status cannot be used to meet degree requirements.
3. Transfer Credit. Usually a maximum of fifteen hours of credit from regionally accredited graduate institutions may be applied toward meeting minimum credit hour requirements for the Doctor of Education Degree (subject to the Recency of Credit regulation). Usually not more than three hours of acceptable transfer credit may be applied toward any given subcomponents of the Professional Common Core.
All transfer credit, including work taken prior to formal admission, is subject to review by the Office of the Dean of the Graduate College, Office of the Dean or Associate Dean of the College of Education, and the College Committee for Doctoral Study. The student's doctoral advisory committee will make recommendations regarding the applicability of transfer credit.
4. Residence Credtt. Following admission to candidacy, the candidate shall be enrolled for a minimum of 24 semester hours of oncampus study which may be distributed across two, three or four consecutive terms with a minimum of six credit hours each term. Graduate assistants may fulfill the residence requirement by taking nine credit hours during each of two consecutive academic year semesters. Credit hour requirements must be fulfilled by enrollments in regularly scheduled classes.
5. Maximum Academic Lood. The maximum graduate load during an academic year semester is fifteen hours; for the eight-week summer session eight hours is the normal maximum; and for shorter pre- and post-sessions, maximum graduate load is normally calculated at one semester hour per week of course contact work.
6. Level of Courses. Credit earned as part of the candidate's program of study will be earned in courses which are at the graduate level. No more than ten hours of credit at the 100 g level (upper-level undergraduate and lower-level graduate) may apply toward this program of study.
7. Eraminations. The following examinations are required of all students enrolled in the Doctor of Education program:
a. Doctoral Comprehensive Examination. The candidate requests permission to take this examination through the Office of the Associate Dean, College of Education. Normally, such a request is made during the term prior to the administration of the comprehensive examination. The doctoral comprehensive examination is governed by the following conditions:
1) The candidate will have completed eighty (80) percent of his/her program of study exclusive of dissertation credit.
2) The examination, prepared and evaluated by the candidate's doctoral advisory committee, will usually be administered in written and oral form.
3) The candidate should have satisfied the evidence of research proficiency requirement prior to taking the doctoral comprehensive examination.
4) A candidate may be permitted to take the doctoral comprehensive examination a second time. (A third attempt will occur only under very unusual conditions; special permission must be sought and received.)
Note: Upon successful completion of the Doctoral Comprehensive Examination, the degree candidate achieves the status of active candidate.
b. Doctoral Dissertation Examination. Upon completion of his/ her doctoral dissertation, the active candidate will request and submit to a public examination over the content, design, and methodology used in conducting the dissertation research.
8. Doctoral Dissertation Proposal. When the student has achieved active candidate status, he/she, in conjunction with his/her adviser, should make arrangements to present the dissertation proposal to the doctoral dissertation committee as a group. The membership of this committee will typically be expanded at this point by the Graduate Dean appointing one member from outside the College of Education. Other membership changes may also be appropriate at this time. Formal work on the dissertation may not proceed without approval from this committee.
9. Time Limitation. The program of study for the Doctor of Education Degree must be completed within seven calendar years from the date that admission to candidacy is granted. Extensions in this time requirement should be the exception and will be granted only for good cause. Such extensions may be granted by the Dean of the Graduate College.
10. Dissertation. A dissertation is required of all candidates for the Ed.D. degree. It will involve no less than nine and no more than twelve semester hours of credit. The first three hours will be Dissertation Seminar. Regulations governing the physical appearance (format) may be obtained from the Office of the Graduate Dean. The dissertation must be in final copy form before doctoral advisory committee members may affix their signatures for approval. No later than two weeks prior to graduation, three unbound copies of the approved dissertation are to be submitted to the Office of the Graduate Dean.
11. Abstracts of Dissertation. Three (3) copies of an abstract of the dissertation must be filed in the Graduate College Office at the time of final deposit of the dissertation. Regulations for the dissertation also apply to the abstract. The abstract must not exceed 600 words in length. Please see the Dissertation Manual for details.
12. Microfilm Agreement. A "Microfilm Agreement" and "Survey of Earned Doctorates" must be completed and returned to the Graduate College Office with the final dissertation.
The University of Northern Iowa participates in a program sponsored by the Association of Research Libraries and conducted by University Microfilms, Ann Arbor, Michigan, for reproduction of doctoral dissertations on microfilm. If the dissertation has been copyrighted, this information must be included on the university agreement form.
13. Dissertation Fees. Several fees are required in connection with the dissertation; these inclue:
a. A binding fee for the library and department copies of the dissertation. If a student wishes to bind additional copies, individual arrangements with a binder must be made.
b. A microfilm fee to cover the cost of microfilming the dissertation and publishing the abstract.
c. A copyright fee if the student wishes to have the dissertation copyrighted.
Students should check with the Graduate College Office or the current Dissertation Manual for the amount of each of the above fees.

The binding, microfilming, and copyrighting fees must be paid at the UNI Controller's Office and a copy of the receipt submitted to the Graduate College Office at the time the final copy of the dissertation is deposited.
14. Application for Graduation. Active candidates for the Doctor of Education Degree must make application for graduation on appropriate university forms. These forms may be obtained from the Office of the Registrar. Active candidates must file application for graduation by the deadline dates designated by the Registrar and published in the Graduate College Bulletin.
15. Attendance at Commencement. The candidate for the Doctor of Education Degree is expected to secure the appropriate academic costume and appear at commencement for the awarding of the degree.

## Program Requirements: Doctor of Education

The program of study consists of three components: the Professional Common Core, Advanced Professional Studies, and the Dissertation. While there are discrete elements in the program, ideally all of the work should be seen as interrelated and focused on a professional career interest. The dissertation, especially, should be seen as an integrating, culminating experience rather than as an "add on" following course work.
I. Professional Common Core - 18 hours.

Interdepartmental Education: 19:301; 19:302; 19:306; 19:307; 19:310; 19:311.
II. Advanced Professional Studies - $30-33$ hours.

This is the component of the program that relates to and supports the student's professional career goal. Students will elect one of six areas of intensive study. Specific course requirements for individual students will depend on faculty requirements and student background, interests, and goals. The only program limitations on work in this component are that the course work (including seminars, practica, independent readings, and independent research) be at the 200 or 300 level and that there be at least 6 hount outside of the elected area of intensive study. The six areas of intensive study are:

Counseling
Curriculum and Instruction
Educational Administration
Reading
School Psychology
Special Education
III. Dissertation - 9-12 hours

This is the program component in which the student demonstrates proficiency in the integration of theory and practice, i.e., it involves the application of existing knowledge and/or results of individual research to an educational problem or situation.
Required:
Interdepartmental Education: 19:389 (3 hours); 19:399 (6-9 hours).

## Doctor of Industrial Technology Degree

The University of Northern lowa offers the Doctor of Industrial Technology Degree in an endeavor to meet the increasing need for advanced degree work in this field of knowledge. Industrial technology is a relatively new and rapidly expanding knowledge base for a wide variety of professional fields, including industrial arts, trade and industrial education, technical institute education, and industrial technology. This new degree program includes the study of the technological systems used in industry and their effect on society and culture.

The Doctor of Industrial Technology Degree is designed to develop scholars in the field of education and industry. Programs emphasize the development of a thorough knowledge of (a) industrial technology as an intellectual discipline, (b) the behavior of the technological systems used in industry and their effect on people and the environment, and (c) the potential and limitations of possible future developments in technological systems and their utilization in industry. Program emphasis is on providing the intellectual tools necessary to pursue scholarly research and applied practice in the field of industrial technology while developing in each student the interest and desire to commit the time an effort required for a leadership role in improving current education and industry programs and determining directions for future programs. The degree program requires a minimum of 64 semester hours of credit completed beyond the master's degree.

Graduates of the Doctor of Industrial Technology Degree programs will be prepared for one or more of the following professional carcers:

1. Teachers of industrial arts, trade and industrial education, technical institute education and industrial technology in secondary schools, colleges and universities.
2. Supervisors and consultants for secondary, college, and universitylevel industrial arts, trade and industrial education, technical institute education, and industrial technology programs at the local, area, state, regional, and national levels.
3. Administrators of industrial arts, trade and industrial education, technical institute education, and industrial technology programs as directors or department heads, or as deans.
4. Researchers and research coordinators for education and industry in specific content fields in industrial technology.
5. Designers, coordinators and directors of industrial training programs, and related industrial applications.

## Admission to Doctoral Study

## Application for Admission

Anyone possessing the master's degree in Industrial Technology, Industrial Arts, Technology or a related technical program, from any accredited institution may apply for admission to the Doctor of Industrial Technology Degree program. Application is made through the Dean of the Graduate College. Individuals indicating an interest in the program will be given appropriate application forms, a description of the program, and a copy of the policies and procedures which apply to this degree.

Applicants in the final semester or summer session of work on the master's degree may submit application materials and be admitted on provisional degree status until the master's degree is completed.

## Types of Admissions

Admission to the Doctor of Industrial Technology Degree program may be granted on a degree status or provisional degree status basis.

## 1. Degree Status Admission.

a) The applicant must hold a master's degree with an education or industry specialization in a content field in or related to industrial technology; the degree must have been granted by an accredited institution.
b) Each applicant must have an overall grade point average of 3.2 on all prior graduate course work.
c) The applicant must have completed the Graduate Record Examination and achieved a minimum combined total score of 1500 on the verbal, analytical, and quantitative sections of this examination with a minimum of 400 for each section.
d) Three references from persons familiar with the academic and professional potential of the applicant must be submitted which support the applicant's request for admission to the program.
e) Applicants for whom English is not their first language must complete the Test of English as a Foreign Language Examination (TOEFL) and achieve a score of at least 550.
f) Each applicant must have a minimum of three years of profes-sional-level educational or industrial experience in or related to the major content field of specialization. Individuals without this experience may be admitted to the program but appropriate professional experience must then be included in the program of study. What constitutes appropriate professional experience will be determined by the student's faculty advisory committee and this requirement will be included in the student's program of study.
g) All applications for admission will be reviewed by the Department of Industrial Technology Graduate Committee. The committee may recommend degree status only if the candidate meets all the above requirements. Provisional degree status admission may be recommended if an applicant does not meet all the above requirements or if the committee believes further graduate course work or professional experience is desirable prior to an applicant's being approved for degree status admission. The committee may require a personal interview with an individual before taking action on an application for admission.

## 2. Provisional Degree Status Admission.

Applicants who do not meet all requirements for degree-status admission or are recommended only for provisional degree status admission by the Department of Industrial Technology Graduate Committee must meet one or both of the following criteria before they may be reconsidered for degree status:
a) All deficiencies for admission to degree status have been removed.
b) A full graduate load of eight (8) semester hours for a summer session or twelve (12) semester hours for a semester is completed in course work recommended by the faculty adviser appointed by the department head with a minimum grade point average of 3.2 Course work completed while the individual is on provisional degree status admission may be applied toward degree requirements only if it is subsequently approved by the faculty advisory committee assigned to the student.

## Faculty Advisory Committees

After degree status admission has been granted, a faculty advisory committee will be appointed by the Graduate Dean in consultation with the Head of the Department of Industrial Technology. The student and the faculty adviser will be responsible for recommending members for appointment to the faculty advisory committee. The committee will consist of three (3) members from the Department of Industrial Technology and two (2) members outside the department. A committee member from within the Department of Industrial Technology will serve as chair. The five committee members must be members of the University of Northern Iowa Graduate Faculty. This advisory committee shall have the responsibility for the following:

1. Personal interview with student after completion of the Personal Career Development Plan (candidacy examination).
2. Approval of the application for candidacy and program of study for the individual student.
3. Preparation and evaluation of comprehensive written and oral examinations.
4. Determination of any remedial requirements after comprehensive written and oral examinations are completed.
5. Approval of publication requirement before allowing student to submit dissertation proposal.
6. Approval of dissertation proposal and supervision of dissertation effort.
7. Final approval of completed dissertation.
8. Preparation and evaluation of oral examination over dissertation.
9. Recommendation of candidate for degree. Four of the five committee members must approve all actions of the committee.

## Admission to Candidacy

Students will usually apply for admission to candidacy and submit programs of study for approval during their first semester or second summer session in residence. All course work in progress or completed prior to applying for admission to candidacy must be subsequently approved by the faculty advisory committee in order to be counted on a student's program of study.

Admission to candidacy and program of study approval will be recommended to the Department Head and to the Dean of the Graduate College only after a formal interview of the student has been conducted by the faculty advisory committee.

The program of study submitted with the admission for candidacy must include a statement relating to the career goals of each candidate
along with a list of specific competencies the student expects to attain through activities associated with program requirements.

Any changes made in program-of-study requirements after the application for candidacy has been submitted must be approved by the faculty advisory committee and the Dean of the Graduate College.

## General Regulations

1. Scholarship. A cumulative grade index of 3.00 ( B average) must be earned at the University of Northern Iowa in all courses attempted as a graduate student. No credit toward graduation is allowed for a course in which the grade earned is below $\mathbf{C}$, and courses in which the grade earned is below $\mathbf{C}$ are not applicable in meeting graduation requirements or in satisfying specific course requirements.
2. Recency of Credit. Courses taken more than seven (7) years prior to the granting of the degree cannot be used to meet degree requirements.
3. Transfer Credit. Usually a maximum of twelve (12) semester hours of graduate credit from other accredited institutions may be applied toward meeting minimum credit hour requirements for the Doctor of Industrial Technology Degree, subject to the Recency of Credit regulation. Credit may not be transferred if taken four (4) years prior to application for admission to the Doctor of Industrial Technology Degree program. The student's faculty advisory committee will make recommendations regarding the applicability of transfer credit.
4. Residence Credit. The student must be enrolled in continuous, full-time study for one academic year plus the preceding or following summer session. Full-time study is considered to be a minimum of twelve (12) semester hours of credit during a semester and six (6) semester hours of credit during a summer session. Persons serving as graduate assistants in the department will be considered full time if they carry at least nine (9) semester hours per semester in addition to the assistantship. Once a student's dissertation proposal has been approved, active registration must be maintained (at least one semester hour) during each succeeding semester and summer session.
5. Maximum Academic Load. The maximum graduate student load during each semester of the academic year is fifteen (15) hours; that permitted during the eight-week summer session is eight (8) hours; that during the two-week post session, two (2) hours. Persons employed full time should not register for more than six (6) hours of graduate credit in any semester.
6. Level of Courses. At least 38 semester hours for meeting minimum credit hour requirements for the Doctor of Industrial Technology Degree must be in 200 - or 300 -level course work. All 100 (g) series courses available in the Department of Industrial Technology require activities beyond those required for undergraduate students; and some courses at both the $100(\mathrm{~g})$ and 200 level require activities for doctoral students beyond those required of predoctoral students.
7. Examinations. The following examinations are required of all students working toward the Doctor of Industrial Technology Degree:
a. Graduate Record Examination. Students applying for admission to the DIT degree program must fonward, with their applications, their scores on the verbal and quantitative sections of the Graduate Record Examination. A combined minimum total score of 1500 on the verbal, quantitative, and analytical sections of this examination with a minimum of 400 for each section is required for degree status admission.
b. Departmental Candidacy Evamination. The Departmental Candidacy Examination for the DIT degree program is termed the Personal Career Development Plan. It is based on the candidate's career goal and it will define the planned program study. It will also serve as a basis for self evaluation, faculte? advisement and for the pursuant completion of the candidate? degree program. The content of the Personal Career Develop ment Plan is a statement of the candidate's career goals, a compilation of the competencies and other skills already possessed along with supporting evidence, and a proposed plan of study to achieve the remaining career goal competencies. The Personal Career Development Plan requires both a written component and an oral interview. The Personal Career Development Plan must be completed early in the first or second semester or summer session in residence. The candidate consults with the chairperson of the advisory committee in the development of the Personal Career Development Plan which requires approval by the candidate's faculty advisory commit tee.
c. Compretensive Examinations. Both oral and written comprehensive examinations are required for the DIT degree program. Comprehensive examinations are prepared and evaluated by the student's faculty advisory committee. Studen should consult with their advisers about the appropriate time apply to take the comprehensive examinations.
d. Dissertetion Examination. An oral examination is required over the content and methodology used in conducting the research associated with the student's dissertation. The examination is conducted by the student's faculty advisory committer after the dissertation has been presented to the faculty advisons committee in final form.
8. Publication. Before being allowed to submit a dissertation propos the student must submit for publication at least one (1) scholart paper to a periodical, journal, or textbook within one of the professional fields related to industrial technology. The faculty advisory committee shall determine when this requirement is met. Publication completed prior to admission to the program may be submitted for consideration.
9. Dissertation. A minimum of three (3) final copies of the accepted dissertation are required to be delivered to the Office of the Graduate Dean no later than two (2) weeks before graduation. The original and two copies of the dissertation must be on 16 pound (minimum weight), 100 percent rag-content, white paper; erasably paper is not acceptable.
10. Abstracts of Dissertation. Three (3) copies of an abstract of the dissertation must be filed in the Graduate College Office at the tim of final deposit of the dissertation. Regulations for the dissertation also apply to the abstract. The abstract must not exceed 400 words in length. Please see the Thesis Manual (obtainable from the Graduate College) for details.
11. Microfilm Agreement. A "Microfilm Agreement" and "Survey of Earned Doctorates" must be completed and returned to the Gradurate College Office with the final dissertation. The University of Northern Iowa participates in a program sponsored by the Association of Research Libraries and conducted by University Microfilms, Ann Arbor, Mich., for reproduction of doctoral dissertations on microfilm. If the dissertation has been copyrighted, this information must be included on the university microfilm agreement form.
12. Dissertation Fees. Several fees are required in connection with the dissertation; these include:
a. A binding fee for the library and department copies of the dissertation. If a student wishes to bind additional copies, individual arrangements with a binder must be made.
b. A microfilm fee to cover the cost of microfilming the dissertation and publishing the abstract.
c. A copyright fee if the student wishes to have the dissertation copyrighted.
Students should check with the Graduate College Office or the current Thesis Manual for the amount of each of the above fees.

The binding, microfilming, and copyrighting fees must be paid at the UNI Controller's Office and a copy of the receipt submitted to the Graduate College Office at the time the final copies of the dissertation are deposited.

## Graduation Requirements

The following requirements for graduation apply to all students on the Doctor of Industrial Technology Degree program.

1. Credit Hour Requirements. A minimum of sixty-four (64) semester hours of credit must be completed beyond the master's degree. At least fifty-two (52) hours of these credits must be earned at the University of Northern Iowa. At least thirty-eight (38) of the credit hours used for meeting minimum credit hour requirements for the degree must be in the 200 - or 300 -level course work.
2. Research Requirements. A dissertation is required of all candidates. Research credit of twelve (12) semester hours will be granted for the successful completion of the dissertation. All dissertation research credit is recorded as Research Continued ( $R C$ ) until the faculty advisory committee has conducted the final oral examination over the dissertation and given final approval for the dissertation.
3. Filing of Dissertations. The dissertation must be submitted in final form to the faculty advisory committee at least seven (7) weeks prior to graduation. Regulations governing the preparation of dissertations may be obtained from the Office of the Dean of the Graduate College.
4. Application for Graduation. The candidate for the Doctor of Industrial Technology Degree must make application for graduation not later than the ninth week of the semester or the fourth week of the summer session in which the student 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.
5. Attendance at Commencement. The candidate for the Doctor of Industrial Technology Degree is expected to secure the appropriate academic regalia and appear at commencement for the awarding of the degree.

## Program Requirements: Doctor of Industrial Technology

It is the student's responsibility to be familiar with all degree program requirements and take the initiative in meeting established guidelines. This specific information may be obtained from the Graduate Programs Coordinator in the Department of Industrial Technology.

## Required Core Program

a) Industrial Technology Foundations -

Industrial Technology: 33:375 (3 hours); 33:376 (3 hours); 33:377 (3 hours); 33:378 (3 hours).
b) Seminars -

Industrial Technology: 33:282 (4 hours).
(Students must enroll in a one-semester-hour seminar during each summer session and semester while meeting residence requirements.)
c) Research, Statistical Methods, and Computer Programming Measurement and Research: 25:180 (3 hours). Industrial Technology: 33:292 (3 hours). Computer Science: 81:101 (3 hours).
d) Internship Industrial Technology: 33:388 (6 hours).
e) Dissertation Industrial Technology: 33:399 (12 hours).

## Supporttug Course Work

Supporting course work may be taken from any discipline in the university as long as it relates to the career goals and competencies identified on the program of study and is approved by the student's faculty advisory committee. A minimum of 8 semester hours (beyond the 6 hours of required core courses) of supporting course work must be taken outside the Department of Industrial Technology.


## 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 course designated $60: 111$ the " 60 " refers to the Department of Art and the " 111 " refers to the course. In registration ahways use the full number.

Courses 0-99 are primarily designed for freshman and sophomore students.

Courses 100-199 are primarily designed for junior, senior, and graduate students. However, only thase 100 -level courses whase numbers are followed by a " $g$ " provide graduate credit, e.g., 94:149(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. Freshmen may not register for $100(\mathrm{~g})$-level courses. Only in very special cases may an exception be granted by the appropriate department head.

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 eam graduate credit. See page 60.

Courses 300-399 are primarily designed for doctoral students. Students are classified as follows:

Earned Semester Hours
Freshman . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . less than 30
Sophomore . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 30-59
Junior . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 60-89
Senior . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 90 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.

179 Cooperative Education - 1-6 hrs. For students who wish to apply classroom learning to field experience. Requires approval by the faculty supervisor and the head of the academic department granting credit for: placement contract, project, and credit arrangements. Credit may not be applied to a major or minor without approval by the department offering the major or minor. Co-op staff develop placements, arrange student interviews with employers, and maintain contact with student and employer during the C 0 -op experience. May be repeated for a maximum of 12 hours credit. (See page 58.)

086, 186, 286 Studies in " $\qquad$ " - 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.

09C, 19C, Open Credit - 1-6 hrs. (See p. 58.)
198 Independent Study - Hours to be arranged in advance. A provision for undergraduate students to do work in a special area not offered in formal courses. (Does not provide graduate credit.) 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 59.)

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 or 389 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 or 399 Research - For details of approval and registration, see pages 112, 134, and 141.

## 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 amanged by Individual Studies Director.
(See pages 10 and 104 for additional information.)

## Guide to Course Numbers

## Alphabetical Order

12 Accounting
99 Anthropology
60 Art
84 Biology
89 Biology at Lakeside Laboratory
86 Chemistry
50 Communication and Theatre Arts
51 Communicative Disorders
81 Computer Science
29 Counseling
87 Earth Science
92 Economics
19 Education, Interdepartmental
27 Educational Administration
24 Educational Media
20 Educational Psychology
21 Elementary and Middle
School/Junior High
62 English Language and Literature
72 French
97 Geography
74 German
41 Health
96 History
31 Home Economics
68 Humanities
69 Humanities and Fine Arts, Interdepartmental
00 Individual Studies
33 Industrial Technology
18 Information Management
66 Journalism
70 Languages
35 Library Science
63 Linguistics

15 Management
13 Marketing
80 Mathematics
25 Measurement and Research
08 Military Science
52 Music
54 Music, Applied
57 Music Education and Methods
59 Music Literature
53 Music, Organizations and Ensembles
56 Music Techniques
58 Music Theory
65 Philosophy
88 Physics
42 Physical Education
94 Political Science
40 Psychology
23 Reading and Language Arts
43 Recreation
64 Religion
77 Russian
30 Safety Education
82 Science and Science Education
26 Social Foundations
90 Social Science
45 Social Work
98 Sociology
78 Spanish
22 Special Education

- Speech (see Communication and Theatre Arts)
- Speech Pathology (see Communicative Disorders)
28 Teaching
01 University, Interdisciplinary


## Code Number Order

00 Individual Studies
01 University, Interdisciplinary
08 Military Science
12 Accounting
13 Marketing
15 Management
18 Information Management
19 Education, Interdepartmental
20 Educational Psychology
21 Elementary and Middle
School/Junior High
22 Special Education
23 Reading and Language Arts
24 Educational Media
25 Measurement and Research
26 Social Foundations
27 Educational Administration
28 Teaching
29 Counseling
30 Safety Education
31 Home Economics
33 Industrial Technology
35 Library Science
40 Psychology
41 Health
42 Physical Education
43 Recreation
45 Social Work
50 Communication and Theatre Arts
51 Communicative Disorders
52 Music
53 Music, Organizations and Ensembles
54 Music, Applied
Departmental Order
Accounting
12 Accounting
Art
60 Art
Bioloty
84 Biology
89 Biology at Lakeside Laboratory
Chemistry
86 Chemistry
Communication and Theatre Arts
50 Communication and Theatre Arts
Communicative Disorders
51 Communicative Disorders
Curriculum and Instruction
21 Elementary and Middle Schoo/Junior High
23 Reading and Language Arts
24 Educational Media
30 Safety Education
Earth Science
87 Earth Science
Economics
92 Economics
Education, Interdepartmental
19 Education, Interdepartmental
Educational Administration and Counseling
27 Educational Administration
29 Counseling
Educational Psycholoty and Foundations
20 Educational Psychology
25 Measurement and Research
26 Social Foundations

English Langunge and Literature
62 English Language and Literature
63 Linguistics
66 Joumalism
Ceography
97 Geography
Health, Physical Education, and Recreation, School of
41 Health
42 Physical Education
43 Recreation
History
96 History
Home Economics
31 Home Economics
Humanities
68 Humanities
Humanities and Fine Arts, Interdepartmental
69 Humanities and Fine Arts, Interdepartmental
Interdisctptinary
00 Individual Studies
01 University, Interdisciplinary
Industral Technoloty
33 Industriad Technology
Information Management
18 Information Management
LHmary Sclence
35 Library Science
Manastement
15 Management
Marketing
13 Marketing
Mathematics and Computer Science
80 Mathematics
81 Computer Science
Military Sclence
08 Military Science
Modern Languages
70 Languages
71 Chinese
72 French
74 German
77 Russian
78 Spanish
Music, School of
52 Music
53 Music, Organizations and Ensembles
54 Music, Applied
56 Music Techniques
57 Music Education and Methods
58 Music Theory
59 Music Literature
Philosophy and Religion
64 Religion
65 Philosophy
Physics
88 Physics
Political Sclence
94 Political Science
Paycholoty
40 Psychology
Science and Science Education
82 Science and Science Education
Social Science
90 Social Science
Sochal Work
45 Social Work

## Socioloty and Anthropoloy

98 Sociology
99 Anthropology
Spectal Education
22 Special Education
Speech (see Communication and Theatre Arts)
Speech Patholody (see Communicative Disorders)
Student Field Experiences
28 Teaching

## Course Descriptions

The following is a listing of all of the courses offered by the various departments of the university. The courses are listed in numerical order.

## 08 Military Science

## Basic Course

08:091. Introduction to the Miltury (MS I) - 1 hs
The role of the military in American society and as an element of American foreign policy; includes basic history of the military establishment, organization of the Department of Defense, current defense strategy, and an introduction to leadership and management models.
08:092. Foundations of Melltany Orgenizations (MS I) - 1 hr
The basic organization of the military services with emphasis on U.S. Army, division level and above; missions and capabilities; plus outline of Army branches, officer and non-commissioned officer duties and responsibilities; continuation of 08:091.
08:093. Military Stritedy and Tretice (MS I) - 3 hrs.
Analysis of historic military battles; includes individual/group project in detailed applications of tactical concepts; leadership techniques of the "Great Captains."
08:094. Tectical Milttary Anslysis (MS II) - $\mathbf{1}$ hr
Small unit tactics and military leadership responsibilities with emphasis on individual and squad-level tactics; includes topographical maps and land navigation study plus leadership of small groups.
08:099. Fundamentals of Military Ortantation and Operation (Compression Course) - 4 hrs.

## Advanced Course

08:116. Small Group Leadership (MS 1II) - 3 hrs.
Organizational leadership with emphasis on unit goals and standards, performance motivation, delegation of authority, and training; includes preparation for and conduct of student-led classes in designated subject areas. Prerequisite: completion of Basic Course.
08:117. Princlples of Milltary Operations (MS III) - 3 hrs .
Fundamentals of military planning and preparation of operations orders for small units; examines organization, functioning, and communications of an infantry company in a tactical environment, includes: defensive, offensive, retrograde, air assault, and fire support operations. Will include a two-day field training exercise. Prerequisite: completion of Basic Course.
08:118. Military Management and Law (MS IV) - 3 hrs.
Leadership and management of large organizations with emphasis on effective management of resources and organizational behavior problems; includes military law and the military justice system, requirements of a profession, and necessity of professional ethics. Prerequisite: completion of Basic Course.
08:119. Adminictrative Manafement (MS IV) - 3 hrs .
Comprehensive review of leadership and management models presented in Basic Course: administrative, logistics, and management duties of junior officers highlighted; emphasis on final preparation for commissioning and current problems in the military and American society. Prerequisite: completion of Basic Course.
08:189. Readings in Contemporary Military Issues - 1-6 hrs.

08:192. Military Science Leadership Practicum - 4-6 hrs.
A six-week summer program at Fort Lewis, Washington, designed to provide leadership development opportunities for students participating in the ROTC Advanced Program. Prerequisite: completion of 08:116 and 08:117, with departmental permission. Students who have completed only $08: 116$ or $08: 117$ may attend with permission of the professor of militany science.

## 12 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. Prerequisite: sophomore standing. Registration requires a cumulative UNI GPA of 2.2 or better, or the equivalent.
12:031. Principles of Accounting II - 3 hrs .
Emphasis on accounting for the corporate form of business, managerial accounting for decision making, financial statement analysis, and accounting for manufacturing firms. Prerequisite: $\mathbf{C}-$ or better in 12:030.
12:129. Intermediate Accounting I-3 hrs.
Principles and procedures, particularly as applied in accounting for assets. Prerequisite: 12:031.
12:130. Intermediate Accounting II - 3 hrs.
Emphasis on accounting for liabilities and owners equity, developing statements from incomplete records, statements 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. Preerequisite: 12:031.
12:132(g). Income Tax - 3 hrs.
Federal taxes as applied to individual and 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 - 3 hrs.
Accounting for partnerships, special sales procedures, consolidations, and govemmental units. Prerequisite: 12:130.
12:138(g). Advanced Financial Reporting - 3 hrs.
Contemporary financial reporting to financial statement users external to firm. Includes review of auditing standards, selected APB Options and FASB Statements; study of Securities and Exchange Commission, and the accounting environment; development of accounting principles; plus a comprehensive case problem. Prerequisite or corequisite: 12:134.
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(s). Advanced Income Thx - 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.PA. 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.
12:169(g). Internship - Accounting - 2-8 hrs.
Full-time accounting internship for minimum of eight weeks. Prerequisites: departmental consent and 2.5 cumulative UNI grade point.

## 12:170(g). Spectal Problems - Accounting - $1-3 \mathrm{hrs}$.

Directed readings, reports, and/or projects. Prerequisite: consent of department head.
12:179. Cooperative Education in Accounting - 1-6 hrs.
Offered only on ungraded basis.
12:230. Accounting Survey and Amplyis - 3 hrs.
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. Prerequisite: consent of MBA adviser.

12:240. Theory of Accounts - 3 hrs.
History and development of accounting principles; theoretical problems related to determination of income; presentation of financial condition. Prerequisites: 12:130 or equivalent; and consent of MBA adviser.
12:262. Managerial Accounting - 3 hrs.
Use of accounting data in managerial decision making process and in the analysis and control of business operation. Prerequisites: 12:030 and 12:031; or 12:230; or equivalent; and consent of MBA adviser.

## 13 Marketing

13:140. Consumer Behavior and Marketing Decisions - 3 hrs.
Recent findings of psychologists, sociologists, and anthropologists, and marketers in relationship to intemal and extemal influences on buyer behavior and marketing-related decision making. Prerequisite: 13:152.

## 13:141. Retail and Wholesale Marketing - 3 hrs.

The study of retailing and wholesaling fundamentals with the integration of marketing, economics, and behavioral sciences. Prerequisites: 13:152; 13:140.
13:143. Retail Merchandising and Management - 3 hrs .
Study of retail management problems from merchandising/mathematical deci-sion-making strategy concept. Trade area analysis; financial analysis including expense and profit computations; pricing policies; inventory evaluation; and sales and stock record analysis. Prerequisites: 13:140; 13:141; 13:149; 13:151; 13:152.
13:147. Advertising Management - 3 hrs .
Decision making in advertising, consumer promotion, sales promotion, and public relations. Includes market analysis, establishing promotion objectives, budgeting, media/promotion mix selection, communication techniques, and evaluation of effectiveness. Prerequisites: $13: 140 ; 13: 149 ; 13: 151 ; 13: 152 ; 13: 171$.
13:149. Marketing Management $1-3 \mathrm{hrs}$.
Integration of major marketing functions from a managerial perspective. Emphasis on tactical aspects of marketing mix: product, price, place, and promotion. Prerequisite: 13:152 (undergraduates) or approval of MBA adviser for graduates.

## 13:151. Marketing Research - 3 hrs.

Procedures used in defining a marketing problem and carrying out the research necessary for its proper solution. Prerequisites: 15:020; C - or better in 15:070.

## 13:152. Principles of Marketing - 3 hrs .

A survey course dealing with the role of marketing in society, customer determination and selection, product management, channels of distribution, pricing concepts, and promotional activity within an economic and business environment. Prerequisites: 92:024 or 92:053; junior standing. Registration requires a cumulative UNI GPA of 2.2 or better, or the equivalent.
13:153. Sales Management - 3 hrs .
Study of primary sales management functions from a decision-making perspective by developing field management tools and procedures including recruiting, selection, training, motivating and developing sales personnel, coaching and performance improvement, and time and territory management. Prerequisites: 13:140; 13:149; 13:151; 13:152; and 13:171.
13:154. Marketing Management II - 3 hrs .
Emphasis on problems, decisions, and decision-making processes of marketing managers in developing marketing programs; theoretical aspect will be integrated with practical application. Prerequisites: 13:140; $13: 149 ; 13: 151 ; 13: 152$; 13:175.
13:155. Industrial Marbeting - 3 hrs.
Study of non-consumer marketing; input-output analysis, buyer company and seller company relationships, organizational behavior, credit policies, financial management and product specification, and industrial marketing practices. Prerequisites: 13:152; 15:151; 15:153.
13:157. International Marketing - 3 hrs.
Marketing practices and trends in businesses senving foreign markets. Prerequisites: 13:152.

## 13:169. Internship-Marketing - 2-8 hrs.

Full-time internship in a marketing-related business for a minimum of eight weeks. Prerequisites: departmental approval; 2.5 cumulative UNI grade point average; and senior standing.
13:171. Promotional Stratedy - 3 hrs .
Consumer decision making and relationship to promotional processes; marketing communications theory, strategies, and techniques; managing the promotional mix: sales management, sales promotion, advertising, publicity/public relations, and packaging. Prerequisites: 13:140; 13:152.

13:172. New Venture Creation - 3 hrs.
Examines skills and procedures needed to plan and create a new venture. Emphasis on self-assessment, first venture analysis, and creation of comprehensive business plan. Prerequisites: 13:140; 13:152.
13:173. Venture Development and Management - 3 hrs .
Procedures for organizing, financing, and implementing a new venture; managing start up, growth, and organizational management. Prerequisites: $13: 140$; 13:149; 13:151; 13:152; 13:172.
13:175. Mariceting Stratedy and Analysis - 3 hrs .
Application approach to the building of marketing strategies based on market opportunity analysis; segmentation; forecasting; quantitative evaluation; integration. Prerequisites: $13: 140 ; 13: 152$.
13:179. Coopentive Education in Marketing - 1-6 hrs.
Offered only on ungraded (credit/no-credit) basis.
13:180. Special Problems - Marketing - $1-3 \mathrm{hrs}$.
Directed readings, Small Business Institute activities, or marketing computer simulation projects under direct supervision of sponsoring faculty member. Prerequisites: consent of department head; 13:140; 13:149; $13: 151 ; 13: 152$.
13:181. Senior Marketing Experience - $\mathbf{3} \mathbf{h r s}$.
Departmentally approved experiential applied study under direct supervision of sponsoring faculty member in one of six areas of specialization: advertising, entrepreneurship, marketing management, marketing research, retailing, or sales. Prerequisites: approval of department head, and 3.0 or better grade point average in 13:140; $13: 149,13: 151$ and 13:152.
13:183. Marketing Research Methods - 3 hrs.
Methods of implementing marketing strategy based on detailed empirical decision making. Emphasis on research design and statistical analysis. Prerequisites: 13:140; 13:152.
13:185. Advanced Marketing Research - 3 hrs .
Experimental study with marketing research project management, development and execution utilizing MIS, computer programs, database management, and interaction with actual business problems. Prerequisites: $13: 140 ; 13: 149 ; 13: 151$; 13:152; 13:183.
13:189(g). Seminar in Marketing Policy - 3 hrs.
Study of corporate marketing management concepts and attendant theories, distinguishing characteristics of marketing organizations, and marketing management career opportunities. Prerequisites: senior standing; and prerequisite or corequisite: 13:175.

## 13:198. Independent Study.

Prerequisite: departmental consent; 3.0 cumulative UNI grade point average; senior standing.

## 13:251. Marleting Theory - 3 hrs.

Evolutions of marketing concepts and future marketing influences; contributions of economic and behavioral sciences to marketing thought; implication of marketing theory to management practice. Prerequisites: 13:263 and consent of MBA adviser

## 13:257. Multinational Business - 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 affilites and subsidiaries doing business abroad; marketing problems of multinational business. Prerequisites: 13:263; and consent of MBA adviser.
13:263. Marketing Management - 3 hrs.
Integrated approach to marketing from managerial viewpoint using economi quantitative, and behavioral concepts in analyzing and developing framework a decision making and implementing a marketing program. Prerequisites: $13: 14$ and consent of MBA adviser.
13:285. Individual Readings $-1-3 \mathrm{hrs}$.
May be repeated for a maximum of 4 hrs. Prerequisite: departmental consent, and consent of MBA adviser.
13:297. Practicum - $1-3 \mathrm{hrs}$.
Prerequisite: departmental consent and consent of MBA adviser
13:299. Research - 1-6 hrs.
Prerequisite: departmental consent and consent of MBA adviser.

## 15 Management

15:010. Introduction to Business - 3 hrs.
Role of business in United States and world. Examines social, legal, and economic variables affecting business operations; includes functions of accounting, finance, management, marketing, and production. No credit for student who has credit in or is concurrently taking $15: 151,15: 153$, or $13: 152$.
15:020. Quantitative Methods for Business - 3 hrs.
Quantitative and qualitative aspects of problem solving and decision making. Includes: structuring and basics of decision making, classification, theory, functional relationships, marginal analysis, linear programming, and probability. Recommended prerequisite: 4 years of high school mathematics or 80:040.
15:070. Business Statistics - 3 hrs.
Application and interpretation of probability and statistics as applied to business problems; design of experiment, descriptive statistics, sampling, estimation, correlation and linear regression. Prerequisite: $\mathrm{C}-$ or better in 15:020.
15:080. Introduction to Information Systems - 3 hrs.
An introduction to management information systems. Includes an introduction to hardware and data communication technology, software and data management, and business applications of the technology. (Same as 18:070).
15:100. Ledal and Social Environment of Business - 3 hrs.
An introduction to law and the judicial process; business ethics; governmental regulation of business, including anti-trust law, employment law, ervironmental law, product liability, and consumer protection.
15:101. Business Law I - 2 hrs.
Contracts and sales.
15:102. Business Law $11-2$ hrs.
Partnerships, corporations, and commercial paper.
15:104. Law for the C.PA. Examination - 3 hrs.
Intensive study of business law to prepare accounting students for the law part of the C.PA. examination. Prerequisites: 15:101; 15:102; qualified to sit for C.PA. eamination.

## 15:105(8). Labor Law - 3 hrs.

Current labor law and legislation in its present social settings as conditioned by historical landmarks. Emphasis on the National Labor Relations Act. Prerequisite: 15:100 or both 15:101 and 15:102.
15:107(g). Arbitration and Collective Bargining - 3 hrs.
Collective bargaining; strategles and tactics; issues in collective bargaining; arbitration provisions of the Taft-Hartley Act; the arbitration proceeding. Case problems. Prerequisite: 15:105.
15:110(g). Operations Research in Business - 3 hrs.
Basic principles and techniques of operations research; includes topics of forecasting, decision, theory, inventory models, linear programming, simulation, network models, and Markow analysis. Prerequisites: 15:020; 15:070; 15:080.
15:150(g). Manafement of Financial Institutions - 3 hrs.
Broad study of major decisions and policies involved in the financial management of financial institutions; includes asset management, liabilities management, and public issues. Prerequisite: 15:151.
15:151. Corporation Finance - 3 hrs.
Study of role of finance function within the corporate enterprise. Prerequisites: 12:031; 15:070 or equivalent; 92:053; 92:054.
15:152(g). Principles of Investments - 3 hrs.
Investment decision making, analysis, and management; includes descriptive analysis of various investment media, techniques of value analysis, and basic topics in portfolio management. Prerequisite: 15:151.
15:153. Fundimentals of Management - 3 hrs.
Basic principles of management with emphasis on the behavioral approach to the scientific management of organization. Prerequisite: junior standing. Registration requires a cumulative UNI GPA of 2.2 or better, or the equivalent.
15:154. Opertions Mangement - 3 hrs.
Principles of management of productive processes in both manufacturing and service industries. Topics include organizational structure, product selection, process design, capacity and location management, quality management, forecasting, inventory management, and job design. Prerequisites: 12:031; 15:070.
15:155. Advanced Financial Management - 3 hrs.
An in-depth examination of the toois, concepts and theories of financial management. Topics covered include: working capital management, capital budgeting, financial theory, and various appropriate analytical tools. Prerequisite: 15:151.

15:156. Topics th Financial Management - 3 hrs.
Examines financial management decision-making theory and analysis through the use of extensive case study and preparation. Intended to provide working extension of basic financial tools and concepts. Prerequisite: 15:151.
15:157(). Principles of Real Estate - 3 hrs.
Introduction to nature of real estate, its investment value, and related decision analysis; includes appraisal, investment analysis, location theory, financing, legal characteristics, and development. Not designed as pre-license course for sales personnel. Prerequisite: 15:151 or consent of instructor.
15:158(g). International Financial Management - 3 hrs.
Study of financial decision making in an international context. Topics include: financing international trade, management of foreign exchange risk, investment analysis, working capital management, and international taxation. A case study approach is used. Prerequisite: $15: 151$ and junior standing.
15:161. Manufacturing Management - $\mathbf{3}$ hrs.
Inventory management, material requirements planning, master scheduling, capacity planning, shop floor control, plant layout job design, project management. Prerequisites: $15: 070 ; 15: 151 ; 15: 153 ; 15: 154$.
15:162. Risk Management and Insurnce - -3 hrs.
Fundamentals of risk and of insurance as they apply to financial management. Prerequisite: consent of instructor.
15:163. Management Decision Making - 3 hrs.
The nature of organizational decisions; problem identification and structuring; methods of decision making on the certainty-uncertainty continuum. Prerequisite: 15:165.
15:164. Quality Maragement - 3 hrs.
Management of quality in manufacturing and sewice operations. Process control, acceptance sampling, vendor relations, product reliability, equipment maintenance, organizational issues affecting product quality. Prerequisites: 15:070; $15: 151 ; 15: 153 ; 15: 154$.
15:165(g). Organixational Behavior - 3 hrs.
Examination of micro and macro issues found within an organiration which would include: people, technology, environment, and structure. Prerequisites: 15:070; 15:153.
15:166(d). Sthfing - 3 hrs.
Study of personnel selection and placement; includes manpower forecasting, recruiting, interviewing, testing, equal employment opportunity, and affirmative action considerations. Prerequisites: 15:153.

## 15:167. Production Policy - 3 hrs.

The strategic role of the production function in corporate policy. Organizing for production and interfacing with other functional areas. Management of new product and process technologies. Strategic impacts of capacity decisions, quality management, and information technologies. Prerequisites or corequisites: 15:161; 15:164.
15:168(g). Compensation Administration - 3 hrs.
Analysis of theories, strategies and models of assessing and rewarding human performance. Examination of the development of sound wage and salary structure, executive compensation, financial incentives and benefits. Prerequisite: 15:153.
15:169. Management Internship - $1-3$ hrs.
Full-time business internship in management extending for a minimum of eight weeks. May be repeated up to 6 hours. Prerequisites: departmental approval and 2.5 cumulative grade point average.

## 15:170. Specin Problems $-1-3$ hrs.

Credit determined at registration. Student will choose one of the following areas:

1. Management
2. Law
3. Finance
4. International Business

May be repeated with the concentration in different areas. Prerequisite: consent of the head of the department.
15:175. Business Policy and Strateg - 3 hrs.
Interpretation of relationships between the various business disciplines and utilization in administrative decision making. For senior business majors. Prerequisite: completion of rest of "business core."
15:179. Cooperative Education in Nanagement -1.3 hrs .
May be repeated up to 6 hours. Offered only on an ungraded (credit/no credit) basis. (See p. 57.)

## 15:180(g). Toples in Operations Maragement and Operations Research

 -3 hrs .Topics of immediate interest from general areas of operations management and operations research. May include computer simulations, regression analysis, advanced inventory models. Prerequisite: consent of instructor.
15:181(g). Management Information Syatems - 3 hrs.
Information systems analysis and design for communication techniques in the organization; analysis and design for management decision making and control. Prerequisites: 15:080; 15:153.
15:187. Organizational Design - 3 hrs .
An application of concepts presented in 15:153 and 15:165 to a field-based experience in designing solutions to organizational problems. Prerequisites: $15: 163 ; 15: 165$. May be taken concurrently with $15: 163$.
15:189. Seminar in International Business - 3 hrs.
Problems of organizing, financing, and operating multinational enterprises, and the impact of multinational business upon a world economy. Prerequisite: 13:152; 15:153; and junior standing.
15:194(8). International Business Systems: Theory and Experience - 3 hrs . A seminar and field-based experience in comprehending the nature of international business systems through theoretical discussion and interaction with multinational companies. Prerequisite: 15:189 (for undergraduates) or 13:257 (for graduates).
15:210. Law, Business and Soclety - 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 anti-trust, trade regulation, and labor-management. Prerequisite: consent of MBA adviser.
15:220. Advanced Business Statistics -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. Prerequisites: 15:070; consent of MBA adviser.
15:247. Organizational Development and Change -3 hrs.
A systems approach to organizational development which will investigate the following areas of change: models and interventions of change, quality of work life, organizational structure and design, individual and organizational interfaces, and the role of the change agent. Prerequisite: consent of MBA adviser.
15:262. Managerial Concepts - 3 hrs.
Analysis of current administrative philosophy and practices, their historical foundations; integration of an organization from the administrator's viewpoint. Prerequisite: 15:153 or equivalent; and consent of MBA adviser.
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). Prerequisite: consent of MBA adviser.
15:264. Advanced Financial Management -3 hrs .
Financial decison making for student with the basic background in business and introductory finance; expands practical ability to deal with complex financial decisions. Prerequisite: consent of MBA adviser.
15:266. Quantitative Decision Maling - 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. Prerequisites: 15:020; 15:070; or equivalent; and consent of MBA adviser.
15:267. Operations Management - 3 hrs .
Introduction to analysis, design, and management of systems. Prerequisites: 15:070; 15:266; or equivalent; and consent of MBA adviser.
15:285. Individual Readings - 1.3 hrs.
Directed readings and reports. May be repeated for a maximum of 4 hours. Prerequisite: consent of MBA adviser.
15:288. Organization Structure and Design - 3 hrs.
A seminar and field-based experience in designing solutions to organizational problems which utilizes and applies the skills and concepts acquired in 15:262. Prerequisite: 15:262.

## 15:289. Seminar in Business Policy - 3 hrs.

Should be taken in student's last semester of graduate study. Prerequisite: consent of MBA adviser.

15:297. Practicum.
Prerequisite: consent of MBA adviser.
15:299. Research.
Prerequisite: consent of MBA adviser.

## 18 Information Management

## 18:013. Coordinated Occupational Experience

Pass-No Credit. Approved occupational experience. Student receives two hour work experience for each one hour of verified work experience to be applind toward the vocational certification work experience units required. Maximum d 2,000 hours of work experience units may be earned through this course. May repeated. Prerequisite: approval of department head. Corequisite: employmentiz approved job.
18:014. Foundations of Business and Vocational Education - 3 hrs. History, principles, and philosophy of business and vocational education. Prerep uisite: sophomore standing.
18:046. Keyboarding - 1 hr
Beginning course for students with little or no keyboardingtypewriting instru tion. Credit/No Credit.

## 18:047. Typewititig I - 1 hr

Basic typewriting formating skills and continuing development of keyboardi skills. Credit/No Credit. Prerequisite: 18:046 or equivalent.
18:050. Typewriting II - 2 hrs.
Techniques, speed, and control; office-type problems. Class, 2 periods; lab., 3 periods, arranged. Prerequisite: 18:047 or one semester of high school typewtiting or equivalent.

## 18:051. Typewriting III - 2 hrs.

Development of typing skills in specialized fields such as legal, medical, technicu, government, and militany; special work on executive-type problems. Required ín $^{\text {and }}$ approval to teach typewriting. Class 2 periods; lab 3 periods arranged. Prereque site: 18:050 or one year of high school typewriting or equivalent. Recommended corequisite 18:060 for teaching majors.
18:056. Beginning Shorthand - 3 hrs.
Theory and skill development in dictation and transcription for vocational use. Prerequisite: ability to type.
18:058. Advanced Shorthand/Transcription - 3 hrs.
To extend skill and knowledge of shorthand theory. To develop greater competery cy in dictation and transcription. Required for students seeking certification 4 teach shorthand. Prerequisites: 18:050 and a beginning shorthand course.

## 18:060. Word Processing - 1 hrs

Development of word processing skills and techniques including machine dictation and transcription and the use of automated word processing equipmer Prerequisite: 18:050 or equivalent. Recommended corequisite 18:051 for texiz ing majors.
18:070. Introduction to Information Systems - 3 hrs .
An introduction to management information systems. Includes an introduction to hardware and data communication technology, software and data manage ment, and business applications of the technology. (Same as 15:080).
18:112(g). Coordination Techniques -3 hrs .
Responsibilities of cooperative vocational education teacher-coordinator in conay dination theory and practice; role of coordination, on-the-job leaming experiences, selection of training stations, developing training plans, placement of student on the job, and public relations activities. Prerequisites: 18:115 or teaching experience.
18:113. Business Communications I-3 hrs.
Basic written communication development through emphasis on writing skills used in business memorandums and letters; will incorporate skill development listening and effective executive dictation techniques. Prerequisite: Pass on Writing Competency Examination or 62:001.
18:114(g) Business Communications II - 3 hrs .
Communication theory as basis for understanding the principles of both written and oral communications. Includes written business reports and oral presentrtions. Prerequisites: 18:113; junior standing.
18:115(s) Administration of Business Education Programs - 3 hrs.
Organization and administration of business and vocational education programs, with emphasis on marketing and office education. Prerequisites: 18:014; juniot standing.

18:116(s). Curriculum for Training and Development - 3 hrs.
Emphasis on special factors unique to designing, implementing, presenting, and evaluating training programs in organizations. Prerequisites: 18:119; 18:130.
18:117(g). Introduction to Office Systems - 3 hrs .
Fundamentals of office technology; includes automated hardware and software configurations and services. Prerequisites: junior standing; 18:060; 18:070.
18:118(g). The Adult Learner in Triining and Development - 3 hrs .
A study of the psychological and physiological characteristics of the adult leamer with emphasis on the structuring of training and education for the adult learner in a variety of organizational settings. Prerequisites: 18:119; 18:130.

## 18:119(f). Human Resources Development - 3 hrs.

A study of human resources development in organizations with emphasis on self understanding, co-worker relationships, and effective supenvision of individuals and groups. Prerequisite: junior standing.
18:120(g). Records Management - 3 hrs .
Administrative responsibilities involved in control of business records from their creation to processing; storage systems approach to data storage systems involving use of mechanical, electronic, and photographic methods. Prerequisites: 18:060; junior standing or consent of instructor.
18:130(g). Methods of Trining and Development - 3 hrs .
Development of the five technical teaching/training skills and the use of needs assessment, training resources, group strategies, and evaluation. Micro-training will be used for student feedback. Prerequisite: junior standing.
18:160(d). Administration of Information Systems - 3 hrs.
Administration of office systems with emphasis on systems design, implementation and evaluation; selection, training and evaluation of personnel. Prerequisites: 18:113; 18:117 and 18:120.
18:169(g). Internship in $\qquad$ $-4-8 \mathrm{hrs}$.
Student to indicate internship area when registering. Prerequisites: junior standing; 3.0 cumulative grade point and consent of department head.
18:170. Problems in Business Teaching - $1-3 \mathrm{hrs}$.
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.
18:179. Cooperative Education - 3 hrs.
For majors only. Offered only on a CreditNo Credit basis. (See p. 58.)
18:190. Curriculum and Methods for Business Education - 3 hrs .
Curriculum development, motivation, specific presentation methods, and evaluation as applied to business programs. Prerequisite: Level II of the Professional Education Sequence.
18:207. Curriculum Development in Business and Vocational Education -3 hrs .
Curriculum development in business education for all levels of education.
18:210. Measurement and Evaluation - 3 hrs .
Develops skills in the measurement and evaluation of business education subject areas. Includes procedures related to assessment, test construction, testing procedures, and data analysis.

## 18:220. Business Report Writing - 3 hrs.

Emphasis on effective communication through writing and analyzing business reports. Includes data collection, instruments, analysis, formats, and styles. Prerequisite: 18:114 or consent of instructor.
18:234. Philosophy of Business and Vocational Education - 2 hrs. Philosophy, principles, and practices of business and vocational education.
18:240. Post-Secondary/Adult Programs -3 hrs .
Planning, organizing, and administering post-secondary and adult business education; teaching techniques, methods, materials, and resources.
18:245. 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:
18:280. Seminar: Business Education Policy - 2 hrs.
May be repeated for a maximum of 6 hours. Prerequisite: 16 hours completed in master's program.
18:285. Individual Readings - $1-2$ hrs.
Directed readings and reports. May be repeated for a maximum of 4 hours. Prerequisite: consent of department head.

18:289. Seminar: Administrative Management Policy - $1-3 \mathrm{hrs}$.
Should be taken in students last semester of graduate study. Prerequisite: departmental approval.
18:290. Improvement of Instruction in Business Education - 2-3 hrs.
18:297. Practicum - 2 hrs.
Prerequisite: consent of department head.
18:299. Research - 1-6 hrs.
Prerequisite: consent of department head.

## 19 Education, Interdepartmental

19:070. Human Relations: Awareness and Application - 3 hrs . Development of awareness of various societal subgroups, recognizing and dealing with dehumanizing biases (e.g., sexism and racism), and leaming to relate effectively to various groups in order to foster respect for human diversity. Emphasis on self-awareness in human relations issues and how these awarenesses can be translated into positive relationships with others.

## 19:170(g). Human Relations - 3 hrs.

Examination of societal subgroup differences and the impact of sexism, racism, handicapism, ageism, prejudice, and discrimination on interpersonal relations. Attitudes, skills, and techniques for creating favorable learning experiences for students are stressed. Reserved for graduate students and practicing teachers.

## 19:301. Context of Contemporary Education - 3 hrs.

Examinations of issues and problems of concern to educational practitioners from the perspective of educational philosophy, history, and sociology. Prerequisite: 26:220 or 26:234 or 26:235.
19:302. Contemporary Instructional Practices - 3 hrs.
Overview of research knowledge base regarding effective instructional practices and their interrelationship in effective schools. Prerequisite: 20:214.
19:306. Inquiry and Educational Practices - 3 hrs.
Research methodologies applicable to problem-solving in educational practice. Emphasis on program evaluation, case studies, observation, interviews, surveys, and educational research and development. Prerequisite: 25:205 and an upperdivision course in statistical methods.
19:307. Educational Data Analysis and Interpretation - 3 hrs.
Principles and techniques of computer utilization in educational research data analysis and interpretation. Prerequisite: 25:205 and an upper-division course in statistical methods.
19:310. Organizational Processes and Communication - 3 hrs .
Organizational development in the school setting. The course will examine organizational and communication models and processes with emphasis on interaction patterns, interpersonal relations and interpersonal influence. Prerequisite: doctoral status or college approval.
19:311. Educational Leadership and Systems Change - 3 hrs.
Examination of knowledge base for both change and leadership. Emphasis on understanding how change factors and leadership styles interact to influence receptiveness to and acceptance of change. Prerequisite: doctoral status or college approval.
19:389. Dissertation Seminar - Credit/No Credit
19:399. Dissertation Research - CreditNo Credit

## 20 Educational Psychology

20:017. Field Experience: Exploring Teaching - 1 hr .
Direct and indirect experiences in the ways schools function, roles and responsibilities of teachers, and student behavior Must be taken on "ungraded" (credit/no credit) basis. Corequisite: 20:030.
20:018. Field Experience: Teacher as Change Agent - 1 hr .
Direct experiences to increase understanding of learning process and apply skills for facilitating the process; may include motivation, classroom management, and teaching strategies. Must be taken on "ungraded" (credit/no credit) basis. Prerequisites: 20:017; 20:030; or equivalents. Corequisite: 20:040.
20:020. Interpersonal Influence Preferences - 2 hrs.
Exploration of values and goals and how these affect relationships; focus on interpersonal skills and helping relations. Designed to enable prospective teachers to work more effectively with students coming from diverse backgrounds. Must be taken on "ungraded" (credit/no credit) basis.

20:030. Dymamics of Human Development - 3 hrs .
Introduction to behavioral characteristics of individual development; basic developmental principles, age-stage characteristics; and provisions community, family, and school make in the development of children and youth. Corequisite: 20:017. Prerequisites: 40:008 or equivalent; sophomore standing.
20:040. Nature and Conditions of Learning - 3 hrs.
Cognitive, affective and psychomotor learning processes; including behavior modification, concept learning, problem solving, creativity, attitude formation and skill learning. Prerequisites: 20:017 and 20:030 or equivalents. Corequisite: 20:018. Prerequisite or corequisite: 25:050.
20:100(g). Child Psychology - 2 hrs.
Application of developmental concepts, principles and theories to contemporary problems of children age 6 to 12; emphasis on possible causes, children's emotional reactions, and ways of coping with these situations in the classroom. Prerequisite: 20:030 or equivalent; junior standing or consent of instructor.
20:109(g). Development of Yound Children - 3 hrs .
The growth and development of the young child with emphasis on research having important implications for the education of young children. Prerequisite: junior standing or consent of instructor.
20:116(g). Psycholoty of Adolescence - 2 hrs.
Psychological concepts applied to adolescent intellectual, physical, and psychosocial behaviors; designed to improve understanding of, and relationships with, adolescents and their search for identity. Prerequisite: 20:030 or equivalent; junior standing or consent of instructor.
20:118(g). Mental Heath in the Classroom - 3 hrs.
Basic principles of mental health as they apply to the entirety of the educative enterprise. Focus on causative factors relating to the mental health of teachers and students, and ways of arranging classroom environments which maximize learning and minimize threat and self devaluation. Prerequisite: 20:030 or equivalent; junior standing or consent of instructor.

## 20:130(g). Understanding Students With Learning Problems:

Case Studies - 3 hrs .
The evaluation and planning process for the education of students with learning problems through simulated and actual case studies to provide context for discussion and research of issues in the education of students with learning difficulties. Prerequisite: junior standing or consent of instructor.
20:138(g). Paychology of Accldent Prevention - 2 hrs.
A foundation for psychological understanding in the field of accident prevention and behavioral problems. Prerequisite: junior standing or consent of instructor,
20:139(g). Paycholoty 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. Prerequisite: junior standing or consent of instructor.
20:140(g). Socill Psycholog, Education - 3 hrs.
An intensive study of the behavior of man as affected by, and when interacting in, groups. Areas of discussion include prejudice, propaganda, anti-intellectualism, leadership, social perception, group dynamics, game theory, and student protest. Prerequisite: junior standing or consent of instructor.

## 20:141(g). Topics in Values Education - 2 hrs.

Exploration of theories, techniques, and methods for expressing and examining beliefs, values, and feelings in the classroom. Prerequisite: junior standing or consent of instructor.
20:142(g). Abnormal Psycholodes 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. Prerequisite: junior standing or consent of instructor.
20:151(g). Current Approaches to Classroom Discipline - 3 hrs .
Strategies and processes designed to improve and maintain classroom control which also preserve and enhance atmospheres leading to increased academic and personal development by the students. Prerequisites: 20:030, 20:040, or their equivalent; junior standing.
20:180. Feld 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. May be repeated once for credit.

20:188(g). Current Approsches to Multicultural Education - 3 hrs. Comparison of alternative models of multicultural education and a study of th application in school settings. Prerequisite: junior standing.
20:189(g). Seminar in Educational Psycholody - 1 hr
Provides the opportunity of correlating previous course work and knowledge ? the field of educational psychology. For senior psychology majors and minc Must be taken twice, one semester hour each during the senior year. May be thil by graduate students with permission of the department. (May be repeated once for credit.)
20:193(g). Research Experience in Educational Psycholoty - 2-6 hrs. Research participation, and/or independent supervised research including expe, ence in each of the following: search of the literature; analysis of theoretio issues; design, instrumentation, and conduct of one or two major experimen, analysis of results; and preparation of research reports. Prerequisite: 15 hours educational psychology or in some other field of psychology and permission of , department. A total of six semester hours of credit may be allowed.
20:194(g). Clinical Experience - $1-4 \mathrm{hrs}$.
Practice in educational testing, mental testing, interviewing, guidance and counseling, remedial educational procedures; and formulation of follow-4 procedures. Prerequisite: department approval.

## 20:198. Independent Study

20:210. Motivation in Educational Settings - 3 hrs .
Examination of personal, developmental, and situational factors that influence motivation to learn; and the resolution of motivational problems unique to formal educational settings. Prerequisite: minimum of 6 hours of educational psychology or consent of instructors.
20:214. Foundations of Instructional Psychology - 3 hrs.
A study of the factors involved in designing and implementing effective instructional environments.
20:220. Educational Paychology: Classroom Strategies - 3 hrs .
Selected instructional strategies which are extensions of contemporary learning theory that create effective teaching-learning environments. Prerequisite 20:214.
20:230. Theories of Personality - 3 hrs .
Critical examination of the nature of personality theory, and a detailed analysis of the major contemporary theories of personality.
20:235. Theories of Human Development - 3 hrs .
Major theories of human development (e.g., psychoanalytic, cognitive, developy mental, humanistic, and social learning theory). Includes study of noted theorist, in each area and educational implications and applications of their work. Prerequisite: 20:100 or 20:109 or 20:116.
20:240. Introduction to School Psycholoy - 2 hrs.
Nature of the psychological services in the schools; observation of classrooms an activities of various special services personnel. Includes literature of roles an, goals of the school psychologist.
20:241. Topics in Educational Psycholog - 3 hrs.
Examination of results and implications of contemporary educational research upon teaching and learning. Emphasis upon empirical studies in the area of personality, learning, and developmental psychology.
20:270. Psychology of Learning Disabilities - 3 hrs.
Exploration of learning models, integrated with critical review and use at diagnostic test instruments. Development of interpretative skills and adaptions $c$ teacher methods through case study data and clinical experience. Prerequisithef 25:181.
20:273. Behavior Disorders in Children - 3 hrs .
Problems of children who deviate from the norm in behavior and adjustment, including deviations which are organic as well as those which are functional in nature. Observations of clinical procedures.
20:285. Readings.
20:289. Seminar in Education and Psycholoty - 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 Psycholoy - 2-6 hrs.
Supervised off-campus field experience.
20:299. Research.

20:314. Advanced Educational Psycholosy - 3 hrs.
Study of theoretical teaching-learning models that can be used to examine, interpret, and evaluate proposals that advocate changes in the aims, organization, and conduct of American education. Prerequisite: 20:214 or departmental approval.

## 21 Elementary and Middle Schoo/Junior High

21:101. Elementary Methods and Materials - $\mathbf{1 0}$ 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. Prerequisites: 20:018; 20:040; 25:050.
21:105. Learning Experiences of Young Children - 10 hrs .
Experiences, methods and materials for teaching young children. Prerequisites: 20:018; 20:040; 25:050.
21:141(g). Correlated Activities and Materials in Elementary School Science and Mathematics - 3 hrs.
Activity based on pedagogical investigation of manipulative materials and activities used in elementary science and mathematics followed by critical analysis using task analysis and research investigations. Prerequisite: 80:134 and 21:101 or equivalents.
21:142(g). Methods in Elementary Scleace - 2 hrs.
Investigation and implementation of commercial and teacher-constructed materials and appropriate instructional strategies for contemporary elementary school science programs. Prerequisite: junior standing or consent of instructor.
21:143(g). Social Studies in the Elementary School - 2 hrs.
Methods and materials for teaching the knowledge, attitudes, and skills in social studies. Prerequisite: junior standing or consent of instructor.

## 21:145(g). Storytelling - 2 hrs.

Art and techniques of storytelling to enrich the elementary classroom leaming experiences. 21:044; 21:144 or 35:132 should accompany or precede this course.
21:149(8). Parent and Community Relations - 2 hrs .
Procedures for developing home-community-school relationships to promote the education of each child in reaching his or her maximum potential. Emphasis on preschool-kindergarten level. Prerequisite: junior standing or consent of instructor.
21:151(g). Earty Childhood Curriculum - 3 hrs.
Current trends in curriculum for preschool children. No credit for student with credit in 21:105. Prerequisite: junior standing or consent of instructor.
21:152(g). Elementary Curriculum - 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. Prerequisite: junior standing or consent of instructor.
21:154. 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, nurseny school, and kindergarten.
21:155(g). Utilizing Support Services for Young Children - 2 hrs.
Survey of resource agencies and organizations available to children and families. Development of skills in assessing needs, acquiring funding, making referrals and recommendations, and reporting progress. Prerequisites: 21:154 or equivalent; junior standing or consent of instructor.
21:170. Methods and Materials for the Middle SchoolJunior High School -10 hrs .
Teaching strategies, materials, and school organiration for grades 4 through 9 in both the traditional junior high and middle school settings; methods of teaching both the preadolescent and the adolescent. Prerequisite: 20:018; 20:040; 20:050.
21:192(g). Experience - 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.
21:201. Issues and Trends in Elementary Curriculum - 3 hrs .
Current ideas influencing the planning and implementation of curriculum in elementary schools. Prerequisite: 21:101 or department approval.

21:212. Recent Research in Elementary School Science - 3 hrs .
Major philosophical developments as related to changing mode of science instruction. Research on adaptation, management and control in areas of socialpsychological factors and logistical factors. Prerequisite: 21:101 or 21:142 or departmental approval.
21:213. Recent Research in Elementary School Social Studles - 3 hrs. Various research investigations of examining the content and processes of contemporary curricula. Prerequisite: 21:101 or 21:143 or department approval.
21:214. Recent Research in Early Childhood Education - 3 hrs.
Review of implications of research to gain techniques for improving instruction and programs for young children. Prerequisites: 21:105 or equivalent.
21:220. Administration and Supervision of Programs for Young Children -3 hrs .
Preparation to plan, organize, and operate public and private programs for young children, including working with families and with other social agencies, obtaining and administering funds, staffing, providing for health and safety, and curriculum decisions. Prerequisite: 21:154 or equivalent.
21:221. Analusis and Design of Curriculum for Young Children - 3 hrs.
Basic assumptions underlying curriculum for young children to prepare students to improve teaching practices; and provide direction to future decision making on programs and materials. Prerequisite: 21:105 or 21:151 or equivalent.
21:222. Evaluating the Early Chilldhood Curriculum - 3 hrs.
Preparation for conducting and interpreting ongoing curriculum evaluations and meeting evaluation guidelines for funding purposes. Emphasis on evaluation for effective decision making and curriculum problem solving at local level. Prerequisite: 21:221 or equivalent.
21:242. Analysis and Improvement of Science Instruction in the Elementary School - 3 hrs.
Application of developmental psychology to the scope and depth of science instruction; analysis of strengths and weaknesses of altemative science programs including initial and subsequent costs, facility requirements, and implementation difficulties. Prerequisite: 21:101 or 21:142 or department approval.
21:243. Analysis and Improvement of Social Studies Instruction in the Elementary School - 3 hrs.
Aids teacher in exploring historical and current practices in social studies to create new approaches by using available resources and ideas. Prerequisite: 21:101 or 21:143 or departmental approval.

## 21:254. The Gifted Child - 3 hrs.

Educational needs of the gifted and talented child. Emphasis on characteristics, identification, underachievement, counseling, and motivation. Attention to curriculum and organization adaptations. Prerequisites: 25:205; 20:241 or 26:234; plus two years teaching experience and consent of department head.
21:255. Educational Strategies for the Gifted - 3 hrs .
Trends in educational programming for gifted learners. Prescription implementation and evaluation of appropriate educational intervention strategies. Prerequisite: 21:254 or equivalent.

## 21:270. Developments in Middle SchooVJunior High School Curriculum

 - 3 hrs.Characteristics of middle school pupils including social needs, interests, physical and psychological characteristics as these relate to organization, curriculum, and instructional strategies in middle schools and junior high schools. Prerequisite: 21:170 or consent of instructor.
21:285. Readings in Education - $1-3 \mathrm{hrs}$.
21:289. Seminar in Education - 2 hrs.
Special topics listed in Schedule of Classes.
21:297. Practicum in Elementary Education - 2 hrs.
21:299. Research - 3 hrs.
21:352. Curriculum Theory and Development - $\mathbf{3} \mathrm{hrs}$.
Aids the advanced graduate student in viewing, analyzing, and interpreting the curriculum and instruction program of an educational institution and in developing skills for implementing change. Prerequisite: graduate level curriculum course or approval of department.
21:354. Curriculum Implementation and Evaluation - 3 hrs .
Systems for program evaluation and revision and the dynamics of change processes will be explored. Prerequisite: 21:352.

21:389. Seminar in Curriculum and Instruction - 2-4 hrs. Intensive study and seminar presentations of current issues, trends, procedures, and obstacles to change in curriculum and instructional practice. May be repeated. Prerequisites: 21:352; 21:354 (Curriculum Implementation and Evaluation); 24:240.
21:397. Practicum in Curriculum and Instruction - 2-4 hrs. Supervised practice in working as a co-facilitator and/or as a facilitator in program evaluation and revision and/or instructional design and improvement in an educational setting. May be repeated to a maximum of 4 hours. Prerequisites: 21:352 and consent of instructor.

## 22 Special Education

22:050. Introduction to Exceptional Persons - 3 hrs.
Overview of the field of Special Education including historical perspective, characteristics, programs and legal provisions for education of the handicapped.
22:150(g). The Exceptional Child - 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. Written approval of division not prerequisite. Prerequisite: junior standing or consent of instructor. Students may not earn credit for both 22:050 and 22:150.
22:153(g). Adaptations for Students with Phyaical Disabilities - 3 hrs . Instructional programs, classroom procedures, and equipment modification for disabled students with accompanying physical disabilities. Prerequisites: junior standing; 22:050 or 22:150 or consent of instructor.
22:165(g). Adaptations for Students with Sensory Impairments - 3 hrs . Instructional programs, classroom procedures, and equipment modification for disabled students with accompanying sensory impairments in educational settings. Prerequisite: junior standing; 22:050 or 22:150 or consent of instructor.

## 22:170(g). Educational Mmargement of the Handicapped I - 3 hrs .

Prescription, implementation, and evaluation of educational solutions for students manifesting learning and behavioral disorders. Prerequisite: 22:150; junior standing or consent of instructor. Corequisite: 22:192 (tutorial); 22:174.
22:171(g). Educational Management of the Handicapped II - 3 hrs.
Educational management of the handicapped in group settings. Stress upon discipline and management techniques. Prerequisite: 22:170; corequisite: 22:180, 22:182, or 22:183; 22:192.
22:174(g). Teaching the Handicapped - 3 hrs.
Overview of instructional programs for the handicapped from preschool through secondary levels including the use of technology to ameliorate the effects of handicapping conditions. Lab experience in the selection and evaluation of curriculum methods and materials. Prerequisite: 22:150. Corequisite: 22:170; 22:192 (tutorial).
22:180(g). Teaching the Handicapped: Primary - 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. Prerequisites: 22:170; 22:174; 22:192 (tutorial).
22:181(g). Teaching the Handicapped: Secondary - 3 brs.
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 handicapped pupils. Prerequisites: 22:270; 22:174; 22:192 (tutorial).
22:182(d). Taching the Handicapped: Intermediate - 3 hrs.
Instructional methods and materials for the handicapped functioning at intermediate level. Emphasis on acquistion of social and academic skills. Includes teaching the mildly retarded, leaming disordered, and/or behaviorally handicapped individuals. Prerequisites: 22:170; 22:174; 22:192 (uturial).
22:183(g). Teaching the Handicapped: Preacademic/Preschool - $\mathbf{3}$ hrs. Instructional methods and materials for the handicapped functioning at the preschool or preacademic level. This may include teaching the trainable mentally retarded, severely brain injured, psychotic, and other handicapped pupils. Prerequisites: 22:170; 22:174; 22:192 (tutorial).

22:184(g). Home-School Relationshtps for Special Education - 3 hrs . Utilization and coordination of special education services with the home anc school to maximize the potential of the handicapped. Communication tect niques 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(g). Readings in Special Education - $1-2 \mathrm{hrs}$.
Reading and discussion of current methodological developments and innovation in special education. May be repeated once for a maximum of 2 hours credit,
22:187(g). Teaching Severely Handicapped Students - 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. Prerequisites: 22:170; $22: 174 ; 22: 192$ (tutorial).
22:192(g). Experience in Specil Education - 3 hrs.
Supervised teaching and experience in specialized areas of reading or spectal education as listed in the Schedule of Classes. May be repeated in a different ara for a maximum of 9 hours with consent of the instructor Prerequisites vary with the specific experience. Corequisite: 22:170 or 22:171.
22:240. The Consultation Process in Spectal Education - 3 hrs .
Examination, analysis, and application of a methodological model for consulting with teachers of handicapped children. Emphasis on process considerations including interpersonal relations, interaction patterns, interpersonal influence and effect of responses, and communication skills.
22:245. Resource Strategies for the Handicapped - 3 hrs .
Prompting techniques, concept teachins, a principle format for analyzingy 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.
22:251. Vocational Programs for the Handicapped - 3 hrs .
Development and implementation of work study and other vocational programs for handicapped adolescents and adults. Prerequisite: 22:181.
22:252. Community Resources for Spechl Education - 3 hrs .
Study of cooperation and coordination of the school and other agencies serving the handicapped, including various programs and services provided by governmental and private organizations.
22:254. Vocational Assessment of the Handicapped - 2 hrs.
Basic assessment techniques for professional working with handicapped adoley cent or adult; requires application of these techniques in work with handicappes, Designed for those interested in vocational programming for the handicapped. Prerequisite: $22: 251$ or consent of instructor.

## 22:255. Assessment and Programming for the Preschool Handicapped

 -3 hrs .Administration and use of instruments that measure progress in cognitive, language, motor, social/affective, and self-help developmental domains. Implicztions for programming and intervening discussed. Prerequisite: 22:183.

## 22:278. Administration of Spectal Education - 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 informed conceming legal provisions for special education.
22:289. Seminar - 3 hrs.
Prerequisites: 22:171; 22:180, 22:181, 22:182, 22:183, or 22:187; 22:192. May be repeated on different topics for a maximum of 9 hours.
22:290. Practicum - 3-6 hrs.
Prerequisites: 22:171; 22:180, 22:181, 22:182, 22:183, or 22:187; 22:192. May be repeated for a maximum of 9 hours.
22:299. Research - 2-3 hrs.
May be repeated for a maximum of 6 hours.
22:386. Studies in Special Education - 1.3 hrs .
Individualized exploration of topics germane to the students projected objectives Prerequisite: 22:289 or consent of instructor. May be repeated to a maximum of hours.
22:389. Seminar in Spectal Education - 3 hrs.
Offered on special topics as determined and scheduled by the department, Prerequisite:22:289 or consent of instructor. May be repeated to a maximum of 6 hours.

## 22:391. Internship in Special Education - 3 hr .

A field-based experience related to the student's professional goals. Minimum of 3 hours required. Prerequisite: 22:389 (Seminar in Special Education) and 22:398 (Research in Special Education) or 22:386 (Studies in Special Education), and consent of instructor. May be repeated to a maximum of 9 hours.
22:398. Research in Spectal Education - 3 hrs.
Opportunity to pursue topics of interest. Not applicable to dissertation credit. Prerequisite: 25:205 and consent of instructor.

## 23 Reading and Language Arts

23:044. Children's Ltterature - 3 hrs .
Literature materials for the elementary grades; emphasis on goals, scope, and methods. To develop ability to evaluate library materials.
23:110. Reading and Language Arts - 5 hrs .
Introductory course in the teaching of reading and other communication skills. Survey of recent literature and research in the field.
23:111(f). 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. Includes direct experience with children. Prerequisite: 23:110.
23:112(g). Current Toplcs in Elementary Reading - 3 hrs .
Recent methodological developments, new materials, and innovations in organization of elementary reading curriculum. Prerequisite: 23:110.
23:113(g). Teaching Expressive Language Arts - 3 hrs .
Creative aspects of oral and written language in the elementary school; explores methods of fostering creative oral and written expression. Includes survey of recent literature and research in the field. Experience with individual children and small groups. Prerequisite: junior standing or written consent of instructor.
23:114(g). Materinls and Techniques for Reading - 2 hrs .
Analysis and evaluation of reading materials, including technological innovation. Adaptation and creative utilization of materials to meet specific needs of children. Prerequisite: 23:110 or 23:130.
23:130(g). Teaching Reading to Adolescents - 3 hrs.
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 programs. Prerequisite: junior standing or written consent of instructor.
23:132(g). Reading in Content Areas - 2 hrs .
Evaluation of reading demands in school subjects. Suggestions for content area teachers and developmental reading teachers at secondary and upper elementary levels. Prerequisite: junior standing or written consent of instructor.
23:134(s). Foundations for Reading Instruction - 3 hrs.
Current theories of the reading process, components of K-12 reading programs and the roles of personnel in relation to reading programs. Prerequisite: junior standing or consent of instructor.
23:140(d). Diagnostic Teaching of Reading and Language Arts - 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 leaming disabilities. Prerequisite: 23:110 or 23:130.
23:144(g). Lterature for Elementary Children - 3 hrs .
An advanced course in children's literature. Prerequisite: 21:044 or equivalent beginning course in children's literature; junior standing or written consent of instructor.
23:147(g). Remedial Reading - 3 hrs .
Introductory course in remedial reading in public schools; theory, methods, and materials currently used. Prerequisite: 23:140. Corequisite: 23:192.
23:192(8). Experlence in Reading: Tatortag - 2-3 hrs.
Supervised tutoring in the University Reading Center or in a public school Reading Center Prerequisite: 23:140. Corequisite: 23:147.
23:193(s). Experience in Reading: Fleld - 1-4 hrs.
Supervised experience teaching in elementary or secondary reading programs. This course may be repeated for a maximum of 5 hours. Prerequisite: junior standing or consent of instructor.

## 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. Paychology of Reading - 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.
23:238. Diagnosis of Reading Problems - 3 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.
23:240. Language, Learning, and Reading Disability - 3 hrs.
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; 23:238.
23:242. Case Studies in Reading Disablity +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 readings and construction of a research design for a selected problem.
23:250. Issues and Trends in Reading and Language Arts - 3 hrs .
Emphasizes a study of dominant theoretical issues which confront reading and language arts educators and a critical analysis of current trends in reading and language arts programs. Prior teaching experience recommended. Prerequisite: one course in the teaching of reading and language arts.
23:289. Seminar - 2-4 hrs.
Seminar topics to be announced in schedule of classes. May be repeated for a maximum of 4 hours. Prerequisite: consent of instructor.
23:290. Practicum - 2-4 hrs.
Supervised experience in teaching and/or supervision of instruction. May be repeated for a maximum of 4 hours. Prerequisite: consent of instructor.
23:299. Research.
23:354. Curriculum Development and Evaluation in Reading/Language Arts -3 hrs .
Current models, methodologies, and decision-making approaches for development and evaluation of K-12 programs. Prerequisite: 21:352.
23:389. Seminar in Reading - 1 hr
Series of one-hour seminars to accompany doctoral work in statistics, research, and practicum experiences. May be repeated to a maximum of 3 hours. Prerequisite: consent of instructor.

## 23:397. Practicum in Reading - 2-4 hrs.

A supervised professional experience teaching reading education courses at the university level or participating in reading program supervision and consulting within a school district. May be repeated to a maximum of 4 hours. Prerequisite: consent of instructor.

## 24 Educational Media

## 24:030. Classroom Computing - 1 hr

Use of microcomputer technology in the classroom. Emphasis on evaluating instructional software and integrating computer technology with common teachinglearning practices.
24:031. Audio-Msual Communications -3 hrs .
Role of educational media in the teaching-leaming process. Selection, preparation, utilization and evaluation of instructional materials for specific communications. Discussion, 3 periods; lab., as arranged.
24:032. Audlo-Visual Equipment Maintenance - $1 \mathbf{h r}$
Basic mechanical and electronic maintenance of traditional audio-visual equipment. Lecture, 1 hr ; lab., 1 hr . Prerequisite: consent of instructor.

## 24:101(g). The Media Fleld - 1 hr

An introduction to the field of educational and communications media and technology with applications of theory to practice. Prerequisite: junior standing or consent of instructor.
24:105(g). Audlo Syatems - 1 hr
Audio systems essential for motion picture, slide, and television production. Prerequisite: junior standing or consent of instructor.

24:120(g). Media for Dtrect Response Communications - 3 hrs .
Study and application of media for use in direct response communications. Prerequisite: junior standing or consent of instructor.
24:130(g). Slide Production - 2 hr.
Fundamentals of color slide photography and the planning, design, presentation of slide programs. Prerequisite: 24:105.
24:131(g). Resources for Communications - 3 hrs .
Selection, utilization, and implementation of multi-sensory materials in the preparation and design of messages. Prerequisite: junior standing or consent of instructor.
24:138(g). Grophics Production - 3 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. Prerequisites: 24:031 or 24:131; junior standing or consent of instructor.
24:145(g). Film History - 3 hrs .
Historical growth of the motion picture medium, and the evolution of its role as a media of mass communication. Prerequisite: junior standing or consent of instructor.
24:147(g). Photography - 3 hrs .
Basic principles, skills, and techniques of still photography and their application to communication. Lab. included. Prerequisite: junior standing or consent of instructor.
24:148(g). 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.
24:150(g). Instructional Television Production - 3 hrs .
Techniques of instructional television production as applied in the classroom and the studio. Practical experience in planning and producing instructional television programs. Prerequisite: junior standing or consent of instructor.

## 24:151(g). Fundamentals of Motion Picture Production - 3 hrs .

Production and planning, visual continuity, shooting, animation, editing, sound recording, titling, and other technical problems of production as applied to individual student films. Prerequisite: junior standing or consent of instructor.
24:152(g). Advanced Motion Picture Production - 3 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. Prerequisite: junior standing or consent of instructor.
24:156(g). Mult-Image Production - 2 hrs.
An advanced course in planning, production, and presentation of multi-image programs. Prerequisites: 24:105 and 24:130 or written approval of the instructor.
24:157(g). Advanced Instructional Television Production - 3 hrs .
Examination of techniques and theoretical aspects of professional television production applied to a group project. Prerequisite: 24:150 or written approval of instructor.
24:160. Media Projects - 14 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. Prerequisite: 24:031 or 24:131.
Sec. 3. Film. Prerequisite: 24:151; 24:152.
Sec. 4. Photography.
Sec. 5. Multi-Media Communications. Prerequisites: 24:031 or 24:131.
May be repeated for credit to a maximum of 4 hours for any section.
24:186. Studies in Media - $1-4 \mathrm{hrs}$.
24:189. Readings in Media - 1.3 hrs .
24:205. Instructional Computing Design - 3 hrs.
Evaluation, selection and utilization of programmed materials and machines; research and construction of programmed materials. Useful for educational media directors and adminstrators.

24:230. Communication Theory in Media - 3 hrs .
Contemporary theory of human and mass communication, learning, perception, and propaganda as they apply to message design utilizing communication medi
24:232. Selection and Integration of Materials - 1-3 hrs.
Individual experiences providing an overview of curricular resource material
24:235. Media Administration - 3 hrs .
An advanced course to prepare a media graduate to administer any one or all of the specific areas of media.
24:240. Instructional Development - 3 hrs .
Analysis and synthesis for structuring learning environments including learntask, environmental, and instructional strategy analysis.
24:260. Advanced Media Projects - $1-4 \mathrm{hrs}$.
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; 24:138.
Sec. 3. Film. Prerequisites: 24:151; 24:152.
Sec. 4. Photography. Prerequisite: 24:147.
Sec. 5. Multi-Media Communications. Prerequisites: 24:031 or $24: 134$ 24:147.
Sec. 6. Computer Applications: Prerequisite: 24:205.
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 - $1-4 \mathrm{hrs}$.
24:289. Seminar - 2 hrs .
24:297. Practicum - $2-3 \mathrm{hr}$.
24:299. Research.

## 25 Measurement and Research

25:050. Classroom Evaluation Instruments - 3 hrs .
Introduction to classroom evaluation instruments; includes preparation and use of teacher-constructed assessment devices and purposes and interpretation of standardized instruments. Prerequisites: 20:017; 20:030. 25:050 must be taken prior to or the same semester as 20:040.
25:180(g). Statistical Methods in Education and Paycholony - 3 hrs.
Introduction to statistical methods. Includes graphing techniques, measures of central tendency and variability, correlation, $t$-tests, one way ANOVA, and chisquare. 2 hr lab. arr. Prerequisite: junior standing or consent of instructor
25:181(g). Group Evaluation Techniques - 3 hrs.
Measurement and evaluation in the instructional programs of elementary and secondary schools. Utilization of standardized group instruments in measurins aptitude, intelligence, achievement, interest, and personality. Prerequistin junior standing or consent of instructor.
25:185(g). Essentials of Measurement and Evaluation - 2 hrs .
Principles of measurement and evaluation applied to the preparation and analye. of classroom approisal devices. Provides teachers a basis for assessing individr ${ }^{2}$ differences, planning instruction and communicating educational outcom;, Designed for students with a minimum background in the foundations? measurement or teaching experience. No credit for student with credit in $25: 0$ es Prerequisite: junior standing or consent of instructor.
25:189(g). Seminar in Education - 2-3 hrs.
25:205. Educational Research - 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.
25:270. Educational Program Evaluation - 3 hrs.
Examination of models, data-gathering methods, analysis, and report preparation for educational program evaluation; attention to application of evaluation research to specific school and non-school settings.
25:280. Theory and Construction of Tests - 2 hrs .
An advanced course in the theory of test construction and practical application the theory to actual construction and validation processes. Prerequisite: $25: 11_{15}$ 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. Individual Intellectual Assessment - 3 hrs .
Standardization, cross-validation, administration, scoring, and elementary interpretation of: Stanford-Binet Scale, Wechsler Preschool and Primary Scale, Wechsler Intelligence Scale for Children, Wechsler Adult Intelligence Scale.
25:283. Psychodiagnostics - 3 hrs.
Assessment of quantitative and qualitative potentialities of basic IQ tests (Stand-ford-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. Advanced Paychodingnostics - 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. Readtings.
25:289. Seminar in Evaluation and Research.
25:299. Research.
25:300. Descriptive Educational Research - 3 hrs .
An examination of theoretical and practical aspects of survey research including sampling, instrumental design and administration, and the application of computer techniques to the analysis of survey information. Prerequisites: 25:180, 25:281, and 25:294 or departmental approval.
25:301. Advanced Experimental Research in Education - 3 hrs.
Relationships between scientific research, theory construction and ethical principles; true-experimental and quasi-experimental designs; univariate, factorial and multivariate analyses with appropriate computer applications; critical review of experimental literature and preparation of research manuscripts. Prerequisites: 25:180, 25:281, and 25:294 or departmental approval.
25:302. Qualitative Methods in Educational Research - 3 hrs .
The study of the techniques of direct observation and analysis of human behavior in ongoing, naturalistic settings. The focus will be on the problems associated with the two main approaches used in qualitative research - participant observation and in-depth interviewing. Prerequisites: 25:180, 25:281, and 25:294 or departmental approval.

## 26 Social Foundations

26:020. Introduction to Teaching as a Profession - 3 hrs .
For the undecided individual to explore the personal and professional considerations associated with a decision to teach.
26:119. Schools and American Society - 4 hrs.
Relationship of schools and American society from sociological, historical, philosophical, political, and economic perspective. Focus on central characteristics of the educational system and influence of these on teachers as professionals and teaching as a profession. Prerequisites: 20:018; 20:040; 25:050.
26:120(g). Sociology of Education - 3 hrs .
Examination of the sociology of classroom leaming and the role of schooling in social stratification and social mobility. Prerequisite: junior standing or consent of instructor.
26:121(g). Rural Education: Field Study - 2 hrs.
Study of the sociology of education in a village or town of fewer than 2,500 people, with visits and participation in school and non-school sites to study the school(s) and related community. Prerequisites: 20:018; 20:040; 25:050; 26:119.
26:134(g). History of Education - 3 hrs .
Education as a formal institution; emphasis on the historical antecedents which have affected education in Western Culture and America. Prerequisite: junior standing or consent of instructor.
26:135(g). Critics of Education - 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. Prerequisite: junior standing or consent of instructor.

26:138(g). Comparative Education - 3 hrs .
A panoramic view of the educational systems of various nations of the world compared with the education of the United States of America. Prerequisite: junior standing or consent of instructor
26:140(g). Alternatives in Public Education - 3 hrs .
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 altematives. Prerequisite: junior standing or consent of instructor
26:143(g). Low-Income Familles: Educational Ideologies and Myths $-3 \mathrm{hrs}$.
Analysis of literature on disaffected and/or non-achieving students and their social milieu; emphasis on explanatory models and programs designed to improve the educational achievement of poor, minority, and/or non-achieving students. Prerequisites: junior standing and consent of instructor.

## 26:189(g). Seminar in Social Foundations - 2.3 hrs .

26:220. Soclological Perspectives on Schooling - 3 hrs.
Sociological ideas, issues, and processes such as role theory, reference-group theory, social control, social stratification and socialization will be studied and applied to the social structures and current issues and problems facing professionals in education.
26:234. Phillosophy of Education - 3 hrs.
Analytical study of major philosophical viewpoints of modern education, emphasis on professional problems of education and the development of educational principles.
26:235. History of American Education - 3 hrs .
The study of education as a social institution with emphasis on the historical antecedents which have shaped present educational practice in the United States. 26:299. Research.
26:334. Advanced Philosophy of Education - 3 hrs.
Philosophical analysis of the logic of education. Development of educational policy and program positions based upon the results of philosophical thought. Prerequisite: 26:234 or departmental approval.

## 27 Educational Administration

27:114(g). Administrative Services and the Teacher - 3 hrs .
Understanding of teacher/administrator working relationships and of elementary legal and financial areas of administration crucial to successful teacher role performance. Prerequisite: junior standing.
27:141(g). Instructional Leadership - 3 hrs .
Administrative techniques and strategies for improvement of the school program. Prerequisite: junior standing or consent of instructor.

## 27:198. Independent Study.

27:201. Introduction to Educational Administration - $\mathbf{3} \mathrm{hrs}$.
Analysis of societal influences upon educational institutions; the role and function of school administrators.
27:203. Leadership in Education - 2 hrs.
Analysis of roles, and form and manner in which these roles are effectively performed. Prerequisite: 27:201.
27:204. School and Community Relations - 3 hrs.
Factors and conditions within community and schools which affect relationships among the many publics.
27:210. School Personnel Administration - 3 hrs.
Teacher selection and placement, promotion, tenure, and retirement; administration of pupil personnel facilitating services. Prerequisite: 27:201.
27:212. Supervision of the Elementary School - 3 hrs.
Appraisal of instructional processes and development of in-service activities for improvement of instruction.
27:220. Administration of the Elementary School Curriculum - $\mathbf{- 3}$ hrs.
For students in school administration and related service areas; emphasis on role of administrator in development of elementary curriculum.
27:221. Administration of the Elementary School - 3 hrs.
Leadership and management roles of elementary school principal. Prerequisite: one year of teaching experience; should have had 27:201.

27:226. Supenvision of the Secondary School - 3 hrs.
Appraisal of instructional processes and development of in-service activities for improved instruction in secondary school.
27:227. Administration of the Secondary School Curriculum - 3 lrs .
For students in school administration and related service areas; emphasis on role of administrator in development of secondary curriculum.

## 27:228. Administration of the Secondry School - 3 hrs .

Leadership and management roles of secondary school principal. Prerequisite: one year of teaching experience; should have had 27:201.
27:230. School Laws - 3 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.
27:235. Computer Applications in Educational Administration - 3 hrs . Development of computer skills associated with word processing, data bases and electronic spreadsheets. Also, selection, utilization and evaluation of administrative software as it is applied to education. Emphasis will be placed on exploring an on-line delivery system using computer applications for administrative uses.
27:240. School Finance - 3 hrs.
Financial support for education; emphasis on Iowa. Prerequisite: 27:201.
27:241. School Buildings and Sttes - 2 brs.
Problems of school building planning, operation, and maintenance. Prerequisite: 27:201.
27:242. Decision Maring - 2 hrs.
Environmental and personnel factors influencing decision making; specific emphasis on the process, competencies and consequences. Prerequisite: 27:201.
27:243. School Business Management - 3 hrs.
Business administration and budgeting; emphasis on lowa. Prerequisite: 27:240.
27:250. Teaching in Coliese -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 - 3 hrs.
A seminar-type course organized around the major issues confronting vocationaltechnical schools, community colleges, senior colleges, and universities in contemporary society.
27:254. Collective Barsaining in the Public Sector - $\mathbf{3}$ hrs.
Basic principles of collective bargaining as they apply to educational administration.
27:260. History and Philosophy of Higher Education - 3 hrs.
Overview of the historical development, issues, philosophies, and cultural backgrounds of higher education in America.
27:266. Clinical Supervition - 3 hrs.
Principles and process of clinical supervision; emphasis on development of readiness for both clinical supervision concept and implementation of clinical supervision techniques.
27:285. Readings it Educational Administration.
27:289. Seminar in Educational Administration - 2 hrs.
Seminars are offered on special topics as indicated in the schedule of classes.
27:290. Practicum in Educational Administration - 2-4 hrs.
27:299. Research.
27:325. Organimation, Governance, and Administration of Public Education -3 hrs .
Analysis of theories of organization and management models; examination of governance, function, and administration of local, intermediate, state, and federal education agencies. Prerequisite: one course in management or administration in education or departmental approval.
27:385. Readings in Educational Administration - $\mathbf{1 - 3} \mathrm{hrs}$.
Individualized list of selected readings in an area of emphasis, as determined by instructor and student.
27:388. Internship in Educational Administration - $\mathbf{1 - 6} \mathrm{hrs}$.
Required for certification. An intensive experience designed to integrate administration skills in the work setting.
27:389. Seminar in Educational Administration - 2-3 hrs.
Offered on special topics as determined and scheduled by the department. May be repeated for maximum of 6 hours.

27:397. Practicum ti Educational Administrition - 2-4 hrs. May be repeated for a maximum of 4 hours.
27:398. Research in Educational Administration - 1-3 hrs.
Research on selected topics of special interest. Not applicable to dissertation credit.

## 28 Student Teaching

## 28:132. Early Chllahood Taching.

Prerequisite: Common Professional Sequence (Levels I and [I), Professional Semester, and approval of major department.

## 28:134. Lower Elementary Tenching.

Prerequisite: Common Professional Sequence (Levels I and II), Professional Semester, and approval of major department.

## 28:135. Spechal Education Teaching.

Limited to those who are approved for special education. Prerequisite: Common Professional Sequence (Levels I and II). Professional Semester, 8 hours of student teaching credit in a regular classroom, and approval of major department.
28:136. Upper Elementary Teaching.
Prerequisite: Common Professional Sequence (Levels I and II), Professional Semester, and approval of major department.
28:137. Middle SchoolJunior High School Teaching.
Students should have completed the special methods course in their subject field before student teaching. Prerequisite: Common Professional Sequence (Levels I and II), Professionai Semester, and approval of major department.
28:138. Secondury School Teaching.
Students should have completed the special methods course in their major field of preparation before student teaching. Prerequisite: Common Professional Sequence (Levels I and II), and approval of major department.
28:139. Vocational-Technical Teaching.
Required to teach in area vocational schools and community colleges. Prerequisite: Common Professional Sequence (Levels I and II), and approval of major department. Student should have completed special methods course in his/her major field.
28:140. Speckl Area Teaching: Art, Library Science, Music, Physical Educstion, and Speech Pathology
Required to teach in kindergarten and grades one through fourteen. Students should have completed special methods course in their major field. Prerequisitt Common Professional Sequence (Levels I and II), and approval of major departal ment.
28:150. Laboratory Practice - Elementry( ${ }^{\circ}$ ).
28:151. Laboratory Practice - Secondary(").
(*) For experienced teachers ("elementary or secondary, as appropriate) who he" not fulfilled the student teaching requirements for certification and to provide? depth in experience. Includes practice in modem teaching procedures, construction and use of classroom instructional materials, analysis of the teachinglearning process, meeting needs of exceptional children, classroom supervision, and school-parent relations. Special seminar arranged. Departmental recommendation and approval required.
28:191. Supervision of Student Teaching -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 identifict tion and analysis of good classroom procedures desirable experiences for th" 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 teachers and the role of the coordinator of student teaching.
28:250. Advanced Laboritory Practice - 2-4 hrs.
Student may concentrate on any aspect of the school program, such as curriculum, methods, evaluation, remedial instruction, guidance, supervision, adminise, tration, public school relations, educational media and audio-visual aids, an extra-class activities. May be repeated for a total of 4 hours. Approval of the Director of Student Field Experiences and Head of the Department of Teachins required.

## 29 Counseling

## 29:025. Career Decision Milling - 1 hr

Introduction to a structured career decision-making process, including self awareness, career and educational information, computerized assistance and related activities/projects. For freshmen only.
29:103(g). Introduction to Professional Counseling - 3 hrs .
Counseling in both elementary and secondary schools, and the broad area of "human services" employment in community-based settings. Emphasis on related professional issues and concerns. Prerequisite: junior standing.
29:105(g). Relationship Stills - 3 hrs.
Basic understanding of the intricacies of human relationships, including selfawareness of personal attitudes, behavior patterns and effects upon others; verbal and non-verbal observational skills. Will utilize lecture, demonstration, observation, and practical application. Prerequisite: junior standing.
29:112(g). Stress Management - 3 hrs .
The application of counseling processes to the management of stress. Prerequisite: junior standing.
29:114(g). Single Parent Fumily Issues - 3 hrs .
The single-parent family treated from the perspective of the helping professions; the characteristics, challenges, societal implications, and helping strategies related to this population. Prerequisite: junior standing.
29:116(d). Sex-Role Stereotyping - 3 hrs.
The transmission of sex-role stereotyping and its impact on both boys/men and girlswomen. Intervention activities/projects will be examined and developed. Prerequisite: junior standing.
29:124(d). Applied Group Dynamics - 3 hrs.
Involvement in laboratory learning emphasizing the concepts and skills necessary for effective group membership. Course will cover group development theory, conflict management, and conditions for personal and interpersonal learning in group settings. Prerequisites: consent of instructor.
29:125(g). Frclitating Career Development - 3 hrs.
Exploration of career development theory and informational delivery resources and systems. Emphasis on significance of occupational choice; sociological, psychological and economic factors examined. Prerequisite: graduate standing or consent of instructor.
29:150(g). Introduction to Family Counseling - 3 hrs.
An introductory course on family counseling which emphasizes a systems perspective, identification of functional/dysfunctional families, history of family therapy and theoretical foundations and techniques. Prerequisite: 29:105 or permission of instructor.

## 29:198. Independent Study

29:203. Analyals of the Individual - 3 hrs.
Prerequisite: 25:180 or $25: 181$ or $29: 103$.
29:205. Counseling Processes - $\mathbf{3}$ hrs.
Prerequisite: 29:105.
29:207. Counseling Processes with Children - 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: 29:105 or 29:205.
29:210. Management Syatems in Guidance - 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 - 3 hrs.
Emphasis on direct participation in groups to develop skills in guidance and counseling. Prerequisite: 29:124.
29:226. Consultation Skills -2 hrs.
Stresses principles, procedures, and process of consultation roles. Consultation content provided through integration of affective education programs and skills into leaming process. Prerequisite: 29:205.

## 29:227. Counseling Theory - 3 hrs.

Theoretical approaches to counseling. Function and present status of counseling theory. A study of each of the predominant theories. Prerequisite: 29:105.

29:228. Appraisal Techniques in Counseling - $\mathbf{3}$ hrs.
Assessment and appraisal procedures of individuals. Focus will be on the interpretation of standardized and non-standardized tests, inventories and case data for integration in the counseling interview. Registration limited to counseling majors or the permission of instructor.
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.
Instruction in the methods and techniques of counselor supervision with major emphasis in supervisory experiences in a regular school situation.
29:240. Intervention Stritedies - 3 hrs .
Integration of counseling theory and counseling process in the design implementation of strategies for changing designed behaviors. Prerequisites: 29:205; 29:227.

## 29:252. Relationship and Marringe Counseling - $\mathbf{3}$ hrs.

Stresses establishing and maintaining effective relations within marriage, with attention to communication and attitudinal barriers. Recognition of alternative styles. Prerequisites: 29:105; 29:150; 29:205 or 29:207 or 29:227 or equivalent.
29:254. Counseling and Guidance Techniques with Children and Adolescents -3 hrs .
Specific instruction on conceptualization of childhood and adolescent problems with emphasis on appropriate interventions. Focus will be directed towards developmental as well as remedial counseling approaches with accompanying skill development. Prerequisites: 29:105 and 29:124 or consent of instructor.
29:289. Seminar in Counseling - 2 hrs.
Special topics as indicated in the Schedule of Classes.
29:290. Precticum in Counseling - 3 hrs .
Prerequisite: 29:205 or 29:207.
29:290. Internship - 6 hrs.
Prerequisite: 29:205 or 29:207.

## 29:299. Research.

29:335. Counselor Supervision - 3 hrs .
Components include building counseling programs through effective utilization of staff, team building, developing leadership skills, and program evaluation. Prerequisite: 29:235.
29:385. Readings in Counseling $-1-3 \mathrm{hrs}$.
Individualized list of selected readings in an area of emphasis, as determined by instructor and student.
29:389. Seminar in Counseling - 1-3 hrs.
Offered on special topics as determined and scheduled by the department.
29:391. Internship in Counseling - 1-6 hrs.
Required for accreditation. An intensive experience designed to integrate counseling skills in the work setting.
29:397. Practicum in Counseling - 3 hrs .
An advanced supervised experience to further develop counseling skills.
29:398. Research in Counseling - $\mathbf{1 - 3} \mathrm{hrs}$.
Library or data-based research on selected topics of special interest. Not applicable to dissertation credit.

## 30 Safety Education

30:030. Principles of Safety Education - 4 hrs.
Methods and materials of teaching safety education in elementary and secondary schools.
30:130(g). Driver and Traffic Safety I - 3 hrs.
Classroom and practice driving units; safety education as a social problem; development of safety skills, habits, attitudes, and ideals; accident causes; study of research. Prerequisite: junior standing or consent of instructor

## 30:131(g). Driver and Traffic Safety 11 - 3 hrs.

Deals with classroom and in-the-car techniques of imparting instruction to high school students taking driver education. Prerequisite: junior standing or consent of instructor.
30:132(g). Directing the Safety Program - 2 hrs.
Organization and administration of safety programs through the entire school system. Prerequisite: junior standing or consent of instructor.

30:135(g). Teaching Driver Education for the Handicapped - 2 hrs. Methods and techniques in teaching the handicapped 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. Prerequisite: junior standing or consent of instructor.
30:140(g). Traffic Law Enforcement - 3 hrs .
Designed to acquaint safety and driver education teachers with the purposes of traffic law enforcement and traffic engineering. Prerequisite: junior standing or consent of instructor.
30:192(g). Experience in Safety Education - $2-4 \mathrm{hrs}$.
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.)

## 31 Home Economics

31:010. Clothing Selection - $\mathbf{2} \mathbf{h r s}$.
Problems in clothing decisions.
31:015. Clothing Construction I - 2 hrs.
Clothing construction using commercial patterns.
31:018. Clothing Construction II - $\mathbf{3} \mathbf{h r s}$.
Garment construction using advanced commercial patterns and construction techniques. Prerequisites: 31:010; 31:015 or successful completion of Credit by Examination.
31:020. Introduction to Fashion Merchandising - 2 hrs.
Evaluation, selection, coordination, and promotion of fashion merchandise.
31:030. Basic Nutrition - 2 hrs.
No credit for 31:030 if credit previously earned in 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 - 3 hrs.
Basic scientific principles related to food selection and preparation. For majors in Foods and Nutrition in Business, Vocational Home Economics, and Dietetics. Prerequisite: 86:061; corequisite: 86:048 or 86:063.
31:037. Princtples of Nutrition - 3 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. Prerequisite: 86:063 or equivalent; prerequisite or corequisite: 31:035.
31:038. Meal Management - 3 hrs.
Problems in the planning, selection, preparation, and serving of nutritious meals. Emphasis on management of time, energy, and money. Prerequisites: 31:030 or 31:037; 31:035 or 31:039.
31:039. Food for the Family - 3 hrs.
Selection, preparation, and service of food; utilization of nutrition in menu planning. No credit for 31:039 if credit previously earned in 31:035.
31:040. Nutrition and Dental Health -4 hrs .
The need for and functions of nutrients in the body. Emphasis on the effect of foods and nutrients in oral health and disease. Limited to students in dental hygiene program. Prerequisites: 86:061; 86:063; or equivalent.
31:051. Pernonal Relationships - 2 hrs.
Facilitating personal growth and satisfying interpersonal relationships, using group process to increase awareness and acceptance of self and others.
31:055. Human Growth and Development - 3 hrs.
Psychological, cognitive, social, and physiological factors affecting the human deveiopmental pattern from conception through old age. Prerequisite: 40:008 or consent of instructor.

## 31:056. Introduction to Family Services - 2 hrs .

A survey of the possible career settings, roles, and responsibilities of the family services professional. Includes observation and participation in appropriate field placements.
31:057. Human Relationships and Sexuality - 3 hrs .
Male and female identity; establishment of meaningful interpersonal relationships, and definition and role of human sexuality in human relationships.

31:060. Related Design - 3 hrs .
Introduction to design, analysis of the visual environment, elements and princtples of design. Does not count for credit in design major.
31:061. Introduction to Design and Human Environment - 2 hrs.
Context of "design and human environment"; develops individual perception of the complexity of design. Introduction and interpretation of relationship of the design emphasis options to processes of design.
31:062. Household Equipment - 3 hrs .
Selection, use and care of equipment used in the home. Application of basic physical science principles.
31:063. Draving I - 3 hrs.
Introductory drafting course; emphasis on drawing as a visual communication medium. Develops basic technical drafting skills as a graphic language for beginning designers. Prerequisite or corequisite: 31:061.
31:084. Draving II - 3 hrs.
Drawing as a practical design language; development of simple, fast, and accurate] method of drawing; and humanize drawing as a design skill. Includes lab experiences. Prerequisite: 31:063.
31:065. Housing and Home Furnishings - 3 hrs.
Practical, social, and aesthetic aspects of chosing and fumishing a living space. Does not count for credit on design major. Prerequisite: 31:060.

## 31:066. Design I - 4 hrs.

Design elements applied to two- and three-dimensional space. Explores problemt solving by use and interrelationships of form, function, technique, materials, and tools. Development of vocabulary for work and criticism, and for disciplines of professional design practice. Prerequisite: 31:063.
31:067. History of Interions I-3 hrs.
Styles of furnishings, interiors, and architecture from antiquity to the mid-19th century.
31:068. History of Interiors II - 3 hrs .
Styles of fumishings, interiors, and architecture from the mid-19th century to the present and their use in homes; current trends and designers. Prerequisite 31:067.
31:070. Management of Family Resources - 3 hrs .
Management of human, economic, and environmental resources available to individuals and families throughout the family life cycle with emphasis on material resources; application of management processes to goal achievement. Prerequisite: at least sophomore standing.
31:108. Professional Practice: Clothing and Textiles - 1 hr.
Orientation to professional emvironment of the clothing and textiles field; credentials, interviews, job opportunities, professional ethics, and preparation fo! the preprofessional experience. Prerequisite: 31:020 and consent of instructois prerequisite or corequisite: $31: 115$.
31:109(g). Custom Dressmaling - 3 hrs.
Techniques of custom dressmaking; customer relations, management of time, energy and finances in a service-oriented business. Prerequisite: 31:018; junior standing; or consent of instructor.
31:110. Textiles - 3 hrs .
Effect of 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-Fhat Pattern - 3 hrs.
Flat pattern making. Prerequisites: 31:018; junior standing.
31:112(g). Tilloring - 3 hrs.
Tailoring of suits and coats. Prerequisites: 31:018; recommended to precedes 31:111; junior standing.
31:113. Decorative Textiles - 3 hrs.
Textile printing, weaving, dyeing, and other decorative processes. Prerequisite 31:060.
31:114(g). Soclo-Psychological Aspects of Textiles and Clothing - 3 hrs . Origins and functions of clothing and textiles for the individual and societs. Hypotheses concerning clothing among cultures and implications for clothing consumption patterns for individuals and families from personal value systems. Recommended to precede this course: 98:058 or 40:008 or equivalent. Prerequisite: 31:010 and junior standing.

31:115(d). Frahion Retailing Concepts - 3 hrs.
Current theories of clothing consumption factors affecting family clothing eqpenditures; production and distribution of textile and clothing products for the consumer market. Principles of merchandising as applied to clothing and household textiles. Prerequisite: 31:020; junior standing.
31:116. History of Costume - $\mathbf{3} \mathbf{h r s}$.
Costume in the western world from ancient times to 21st century.
31:117(g). Costume Desidn-Draplag - 3 hrs.
Principles of designing with cloth on mannequins. Prerequisites: 31:111.
31:118. Problems in Textiles and Clothing - 1-4 hrs.
(1) Textiles, (2) Clothing.

31:119. Trends in Textile and Apparel Technoloty - 3 hrs.
Survey of research, development, and distribution of textile products in relation to consumer needs. Prerequisite: $31: 110$.

## 31:120. 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.
31:125. Destof II - 4 hrs.
Human determinates as introduction to the organization of human perception of physical and psychological needs in personal space. Prerequisite: 31:066.
31:126. Deslen III - 4 hrs.
Human determinates of design of spaces which solve specific human problems; analysis of the complexities of social functions. Prerequisite: 31:125.
31:127. Deslgn IV - 4 hrs.
Development of systematic approach to solving complex human needs in the public zone. Analysis of user needs in the public environment. Design studies where users and their environment require equal functional priority. Prerequisite: 31:126.
33:130(g). Nutrition During the Life Cycle - 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: $31: 038$ and junior standing or consent of instructor.
31:137(g). Advanced Nutrition - 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: 31:037 and junior standing or consent of instructor.
31:142(8). Experimental Foods - 3 hrs .
Functions of ingredients in various food systems, factors affecting quality of food products, individual experimentation and its relation to research literature, and writing scientific reports. Prerequisites: 31:146.

## 31:143(g). Ortht of Foods - 3 hrs .

Influence of food on cultural and social relationships of family, community, and world. Racial and national food patterns. Prerequisite: junior standing.
31:144(g). Comparative Study of Foods - 3 hrs .
Food preservation, factors affecting palatability and nutritive value of food, product development, sensory evaluations and preference surveys as related to the food industry. Prerequisites: 31:038, 84:033; junior standing.
31:145(d). Quantity Food Production and Purchasing -4 hrs.
Study of various aspects of and laboratory experience in quantity food production and purchasing. Prerequisites: 31:038; and junior standing.
31:146(g). Advanced Food Science - 3 hrs .
The chemical composition and physical structure of proteins, carbohydrates and fats in foods, with methods of analysis, evaluation and application used in the food industry. Prerequisites: 31:035; 31:037; 31:038; and 86:063 or 86:050 or equivalent.
31:147(g). Food Microbiolog - 3 hrs .
Microbiological examination of foods, food-borne illnesses, microbial standards and specifications, food preservation, and sanitation. Prerequisites: 84:033; 86:063.
31:148. Problems in Foods and Nutrition - 1-4 hrs.
(1) Foods; (2) Nutrition.

31:149. Nutrition in Disease -3 hrs .
The role of nutrition in the prevention and treatment of disease. The pathology of selected diseases and the biological basis of nutritional, medical, and drug therapy. Prerequisites: 86:050, 84:138, $31: 130$ or 31:137.
31:150(g). Child and the Home - 3 hrs.
The infant through pre-school age; experience with children through a playschool situation. Prerequisite: 20:030 or 31:055; junior standing.
31:151(g). Families and the Public Domain - 3 hrs.
Promotion and support of effective family functioning through an understanding of the interrelationships among families, laws, and public policy. A study of family theory as it relates to the public domain. Prerequisite: 31:152.
31:152. Fumily Relationships - $\mathbf{3}$ hrs.
Understanding self as an individual and family member; using group process to explore relationships and communications within family groups throughout the life cycle.
31:153(g). Fumily Relationships in Crisis - 3 hrs .
Family dynamics in crisis situations; effects of stress and crises on individuals and families; intervention techniques used to support family members facing crises (e.g., divorce, unplanned pregnancy, child abuse, physical or mental disability, job loss, and death). Prerequisites: $31: 152$ or consent of instructor, junior standing.
31:154(g). Family Perapectives in Adulthood and Aging - 3 hrs .
Theories and developmental patterns in early, middle, and late adulthood. Family interaction patterns in adulthood from biological, social, and emotional perspectives. Prerequisites: 31:055 or 20:030; or equivalent; junior standing.
31:155(g). Parenting - 3 hrs .
Roles and relationships involved in parenting; practical aspects of child rearing based on developmental stages, emphasizing the development of self with love, trust, identity, autonomy, and responsibility. Prerequisites: 31:055 or 20:030 or equivalent; junior standing.
31:156. Professional Practice in Family Services - 2 hrs.
Evaluation of students professional role expectations; professional ethics and responsibilities; functioning in diverse-cultural/socio-economic settings. Preparation for pre-professional experience. Prerequisite or corequisite: 31:153(g).
31:157(g). Family Life Education - 3 hrs .
Exploration of issues, materials, and methods in family life education; development of concepts and curricula for various age and special needs groups; qualifications of the family life educator. Prerequisites: $31: 057$ or $31: 152$; junior standing.
31:158. Problems in Relationships and Human Development - 1-4 hrs.
Sec. 1. Personal and Family Relationships.
Sec. 2. Human Development.
Sec. 3. Human Sexuality.
31:163(g). Contempornry Housing Problems - 3 hrs.
Analysis of current U.SA. 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. Prerequisites: junior standing; 31:065 or consent of instructor.
31:164. 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 or corequisite: 31:127.
31:168. Problems in Housing and Interior Design - 1-4 hrs.
Sec. 1 Housing.
Sec. 2 Interior design.
Sec. 3 Household Equipment.
31:171(g). Family Financial Management - $\mathbf{3}$ hrs.
Extemal and internal factors affecting family financial decisions; development of helping skills to assist families and individuals to make responsible financial decisions and become self-sufficient in managing their money. Prerequisite: 31:070 or consent of instructor.
31:172(g). Home Management Applications - 3 hrs .
Application of resource management theory and content; emphasis on management in dual career, low-income, single-parent, handicapped, and aging fammilies/households. Prerequisites: 31:038 and 31:070.

## 31:177(g). The American Consumer - 2 hrs.

Analytical approach to the consumption of goods and senvices. Understanding the consumer movement; developing competencies for consumer decisions and actions. Prerequisite: junior standing.

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

Experience in applying the principles of management to family resources. 1) Family economics; (2) consumer, and (3) home management. Prerequisites: 31:038; 31:070; and consent of instructor.
31:180. Instructional Strategies: Applied Home Economics - 3 hrs. Application of teaching/learning theory, developmental concepts, social processes, and teaching strategies for teaching individuals and small groups in nonschool settings. This course is designed for Dietetics or Foods and Nutrition or Family Services majors and does not apply to a teaching major. Prerequisite: 40:008. Prerequisite or corequisite: $31: 130$ or $31: 137$ or $31: 153$.

## 31:181(g). Ordanizations and Administration of Vocational Home Economics

 Proprams - 2 hrs.History, philosophy, and current status of vocational home economics. Includes program development and coordination of home economics-related occupations and career education in home economics. Prerequisites: Level I of the Common Professional Sequence and at least 20 credit hours of required departmental courses; junior standing.
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. Prerequisite or corequisite: 31:190.
31:184(g). Topics - $1-3 \mathrm{hrs}$.
Selected topics relating to current issues in home economics. Topics to be announced in the Schedule of Classes. May be repeated for maximum of 4 hours but not in the same topic. Prerequisite: junior standing or consent of instructor.
31:188(g). Problems in Education - 1-4 hrs.
(1) Home Economics Education; (2) Curriculum Planning. Prerequisite: senior standing and consent of instructor.
31:190. Methods in Home Economics - 3 hrs.
Roles of home economics teacher. Planning and evaluating the teaching of home economics including microteaching experience. Prerequisites: Levels I and II of the Common Professional Sequence and at least 25 credit hours of required departmental courses.
$31: 193$. Home Economics as a Profession - 1 hr
History, philosophy, professional ethics and organizations, and relationships of the home economics profession; discussion of roles and opportunities for the new professional in home economics. Prerequisite: senior standing or consent of instructor.
31:195. Pre-Profescional Experience.
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 - 4 hrs.; prerequisite: 31:108.
Sec. 2. Foods and Nutrition - 4 hrs.
Sec. 3. Design and Human Environment - 4 hrs.; prerequisite: 31:164.
Sec. 4. Family Services - 4 hrs.; prerequisite: 31:156.
31:198. Independent Studyt
31:189. Study Tour - $2-3 \mathrm{hrs}$.
31:250. Pamily Life and Human Sexuality- 3 hrs.
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: 31:057 or consent of instructor:
31:252. Human Development Through the Life Span - 3 hrs.
Principal conceptual frameworks in human development. Includes review of theories of child and adolescent development, and in-depth look at adult and family interactions and stages of maturity and old age. (Same as 40:252.) Prerequisite: 31:055 or 20:030 or 40:120 or equivalent.
31:280. Methode and Curriculum in Home Economics - 3 hrs.
Clarification and use of a rationale in curriculum development in home economics. Special problems in application.

## 31:281. Research in Home Economics - 3 hrs.

Evaluation of current research in home economics and development of research proposals. Prerequisite: introductory statistics course or consent of instructor.
31:282. Supervision and Leadershlp Development in Home Economice - 2 hrs.

Basic principles of supervision and leadership including theory and research. Application within the school setting and other supervisory positions.
31.283. Techniques of Evaluation - 2 hrs .

Construction and use of different types of instruments for evaluating education. outcomes. Guided study of the available measuring instruments in home economics.
31:284. Current Issues and Trends in Home Economics - 3 hrs. Examination of issues faced by home economists and current trends in the field 31:285. Readings in Home Economics - $\mathbf{1 - 6}$ hrs.
Readings in various areas according to student needs.
31:288. Problems in Home Economics - $\mathbf{1 - 4}$ hrs.
Various areas according to students' needs. 1. Home Economics Educatiout 2. Human Development and Family Life; 3. Foods and Nutrition; 4. Clothing an Textiles; 5. Design and Human Emvironment; 6. Management and Consumae Education.
31:289. 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. Practicum - $2-3 \mathrm{hrs}$.
(Non-teaching.) Experience in various areas according to student needs. May be repeated for up to 8 hours of credit.
31:299. Research.

## 33 Industrial Technology

## 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 Technolony - 6 hrs.
Laboratory activities in measuring, forming, separating, combining, conditioning, and finishing processes.
33:018. Introduction to Construction Technoloay - 1-2 hrs.
Management, personnel, and production practices of the construction industrs. Lab includes topographic mapping, surveying, concrete, masonry, and woodframe building construction. Discussion, 1 period; lab., 2 periods; lab. not required for Construction Technology majors. Prerequisite for lab. sections: 33:011 or consent of instructor
33:019. Introduction to Industrial Arts Education - 2 hrs.
Introduction to the industrial arts education teaching environment, requirements, responsibilities and professional literature and organizations. Includew historical background, contemporary approaches, trends and the role of industrih al arts in the total school curriculum, and exploration of personal goals.
33:020. Communication Systems - 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. Communication Technology - 5 hrs.

Synthesis of industrial communications through product development, distribution, and sevvice: includes product and packaging design, and development of promotional materials via visual and audio communications.

## 33:024. Technical Drafting - 4 hrs.

Orthographic projections, auriliary and sectional views, advanced dimensioning and tolerancing methods, surface control standards, electronic diagrams, assembly and detail drawing and reproduction methods. Prerequisites: 33:022 or two semesters hidh school or one semester post-high school mechanical drafting. 33:032. Power Systems - 2 hrs.
Broad areas of enerty and power; emphasis on technolody involved in powe transmission, seneration, control, storase, and consumption. Enery utilization by society and the impact on the economy and environment.
33:038. Power Trehnoloty - 5 hrs.
Basic applications of specific principles of enery and power systems. Demonstrstions of instrumentation, procedures analysis and reporting.

## 33:038. Industrial Electricity - 4 hrs.

Study of AC concepts as assoclated with motors, senerators, transformers, control devices, and electrical distribution systems. Prerequistite: 33:036 or consent of instructor.

33:041. Machine Tools - 4 hrs.
Precision measurement and layout techniques; tool grinding and fabrication; advanced machining techniques and related information; introduction to numerical control. Prerequisite: 33:011 or consent of instructor.
33:101(g). History and Philosophy of Vocational-Technical Education -2 hrs.
Philosophy and historical development, principles, practices, and organization of public vocational-technical and adult education in the nation. Prerequisite: junior standing or consent of instructor.
33:105(s). 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.
33:110. Descriptive Geometry - 3 hrs .
Graphic solution to geometric problems pertaining to industrial product design. Content includes the theory of projections and solution of space problems involving points, lines, planes, connectors, intersections and developments, using awxiliary views and rotation methods. Prerequisite: 33:024 (formerly 33:111).
33:112(g). Product Design and Drafting - 3 hrs.
Application of principles and processes of design and drafting to the research and development of manufactured products. Prerequisites: 33:011; 33:110 (formerty 33:012); 33:170 or 33:172; or consent of instructor.

## 33:113(g). Tool Design and Drafting - $\mathbf{3} \mathrm{hrs}$.

Types of tools, basic tool making practices, materials and components. Includes design and development of working drawings of jigs and fixtures for drilling, reamings, and milling; also die designs for blanking and piercing operations. Application of drafting practices typical to this area of manufacturing. Prerequisites: $33: 011 ; 33: 024$ (formerly $33: 111$ ); 33:170 or $33: 172$; or consent of instructor.

## 33:114. Manufacturing Enterprise -3 hrs .

Application of organizational and production management practices within a simulated manufacturing enterprise. Activities relate to product design, process planning, tooling-up and mass-production of a finished product. Prerequisites: 33:011;33:022; or consent of instructor. No credit awarded to students with credit in 33:143 or 33:144 or 33:145.
33:115. Construction Planning and Drawing - 3 hrs.
Design and development of working drawings for structures. Prerequisites: 33:166 or consent of instructor.
33:116(g). Architectural Phans and Specifications - 3 hrs.
Analysis and interpretation of contract documents for construction. Emphasis on analyzing working drawings and specifications for construction details, structural and mechanical systems, and compliance with building codes. Prerequisites: 33:115, 33:167, and junior standing; or consent of instructor.
33:117(g). ComputerAlded Drafting - 3 hrs .
Development and production of drawings and other graphic forms using the computer and flatbed plotter with an introduction to BASIC programming. Prerequisites: 33:024; Manufacturing Technology major with concentration in mechanical design; junior standing or consent of instructor.

## 33:118(g). Technical Illustration - 3 hrs.

Pictorial drafting, shading, and rendering as used in manufacturing and architectural industries. Student may choose area of emphasis. Prerequisite: 33:024 (formerly $33: 111$ ); junior standing or consent of instructor.
33:119(g). Computer Applications in Industrial Technoloy - 3 hrs .
Review and evaluation of selected programs and software packages relative to manufacturing, construction, power, and graphic communications. Students will investigate computer applications in their technical concentration and develop at least one applications program using BASIC. Prerequisites: junior standing; 15:080 or 18:070 or 81:070 (BASIC); major in Department of Industrial Technoloy; or consent of instructor.

## 33:121. Industrial Wood Processing -4 hrs.

Advanced operations and procedures of wood processing with emphasis on alternatives to solid wood fabrication, equipment maintenance, and safety principles and practices. Prerequisites: 33:011; 33:022; or consent of instructor. 33:123(g). Wood Technoloty I - 3 hrs .
Mass production in the woodworkins industries; product selection and development; production machines; design of tools, jigs, and fixtures. Prerequisite: 33:121 or departmental approval.

33:126. Applied Thermodynamics and Prime Movers - $\mathbf{3}$ hrs. Develops concepts of thermodynamics and explores their application to industrial prime movers through lecture and laboratory experiences. Prerequisites: 33:036; 80:048; or consent of instructor.
33:127(g). Construction Tectniques - 4 hrs.
Principles and application of carpentry, concrete, and masonry systems. Includes on-site construction activities. Prerequisites: 33:005 and 33:011; or consent of instructor.
33:128. Electrical and Mechanical Syatems in Construction - 4 hrs.
Principles and applications of electrical, heating and cooling, and plumbing systems in residential and commercial buildings. Includes on-site construction activities. Prerequisites: 33:005 and 33:011; or consent of instructor.
33:129. Mechanical Power Syatems - 3 hrs.
Develops concepts of mechanical power systems in detail through study of industrial applications. Prerequisites: 33:036; 88:054; or consent of instructor. 33:130(g). Metal - 2 hrs.
Advanced instruction in one of the following: oxyacetylene welding, electric arc welding, foundry, sheetmetal, metal spinning, ornamental iron, forging and heat treating, and art metal and enameling. Prerequisites: 33:011 or consent of instructor; junior standing. May be repeated in different areas but credit toward degree may not exceed 8 hours.
33:132(g). Metallursy - 3 hrs .
Basic principles and processes utilized in the making, shaping, and treating of metals and alloys used in the production industry. Prerequisites: 33:011, 86:020 or 86:044, or consent of instructor, and junior standing.
33:134(g). Metaleasting Technoloty - 3 hrs .
Green sand molding and other metalcasting processes, non-ferrous and ferrous melting and pouring practice cores, pattemmaking and sand technology. Prerequisites: 33:011 or consent of instructor, junior standing.
33:135. Practicum in Material Processing Technoloty - 1 hr
Participation in supervision of students in 33:011. Prerequisite: Minimum grade of $B$ in 33:011 and consent of instructor.
33:136(g). Construction Surveging - 3 hrs.
Leveling, topographic surveying, triangulation, horizontal and vertical angles, area determination, and other basic construction applications of surveying procedures. Care and use of instruments, lecture and field exercises. Prerequisites: 33:005, 33:011, 33:018; or consent of instructor.
33:137(g). Construction Materials - 3 hrs.
Materials of construction; their properties, manufacture, characteristics and application. Prerequisites: 33:005, 33:011, 33:018; or consent of instructor.
33:143(d). Planning Manufacturing Systems - 3 hrs .
Emphasizes the production functions related to forecasting, process planning, operations cost analysis, resource scheduling, and plant layout and design. Prerequisites: 33:011; 33:024 (formerly 33:111); 80:040; or consent of instructor.
33:144(g). Controlling Manufacturing Systems - 3 hrs.
Emphasizes the production functions related to inventory control, production control and quality control. Prerequisites: 80:040; $33: 143$; or consent of instructor.
33:145(g). Improving Manufacturing Systems - 3 hrs.
Emphasizes the production functions related to methods study, work measurement and work sampling. Prerequisite: 33:011; 80:040; or consent of instructor.
33:146(g). Numerical Control Programming - 2 hrs.
Machine coordinate systems, tape coding systems, programming formats, point-to-point and continuous-path programming, introduction to computer numerical control. Prerequisites: 33:041 [formerly 33:141(g)]; 80:040; junior standing or consent of instructor.
33:147(g). ComputerAided Manufacturing/Robotics - 2 hrs.
Emphasizes robotics applications and computer-assisted NC programming; other topics include automated flow lines, flexible manufacturing systems, group technology, computer-integrated manufacturing, and management information systems. Prerequisites: 33:146; 15:080 or 18:070 or 81:025 or 81:070.
33:148(d). Mechanisms: Design-Oriented Kinematics - 3 hrs.
Analysis of kinematic systems for displacement, velocity and acceleration. Topics include design of linkages, cams and gears by analytical and graphical methods. Prerequisites: 33:170 and 88:054, or consent of instructor, and junior standing.

33:149. Construction Estimating - 3 hrs .
Computer applications, activity node scheduling, and construction cost analysis techniques for estimating materials, labor, and fabrication costs in commercial building construction. Prerequisites: $33: 167$; 33:116; or consent of instructor.

## 33:150(g). Screen Printing Technolog - 3 hms .

Screen preparation methods, two- and three-dimensional printing, and color register printins; emphasis on technical information and laboratory experiences. Prerequisite: 33:155 or consent of instructor.

## 33:152(g). Industrial Electronics - 3 hrs.

Study of solid state devices and their use with other electronic components to make electronic systems for application in industry. Prerequisite: 33:038 or consent of instructor.
33:155. Graphic Arts - 4 hrs.
Introduces broad concepts and practices involved in placing graphics images onto solid materiais. Involves two-dimensional design and layout, image assembly, photo-comversion, image carriers, image transfer, and finishing and binding. Prerequisite: 33:022 for majors or minors in the Department of Industrial Technology; or consent of instructor.
33:156(g). Digtin Electronics - 3 hrs.
The basic logic gates, fundamental digital circuits, and the tools and techniques used for analysis and application of digital circuits. Prerequisite: 33:152 or consent of instructor.
33:157(g). Introduction to Microcomputers - 3 hrs.
Microprocessors and supporting chips instructions, peripheral devices that constitute a functioning microcomputer. Software design and development, input-output devices, interfacing, and ADDA corversion included. Prerequisites: $33: 156$; 81:070, or consent of instructor.
33:158(g). Lthographic Technoloty - 3 hrs.
Emphasizes photographic-computer type composition, haltone and special effects photography, multiple color stripping and platemaking, and operation of offset-lithography, single-color duplicator presses. Prerequisites: 33:022 and $33: 155$; or consent of instructor.
33:162(g). Applied Fluid Power - 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. Prerequisites: 33:005 and 80:048; junior standing or consent of instructor.
33:166. Light Construction - 3 hrs.
A study of light commercial, agricultural, industrialized and multi-family structures. Issues and problems of site investigation, energy concepts, electrical and mechanical systems, with an emphasis on related building codes. Prerequisites: 33:005, 33:011, 33:018; or consent of instructor.
33:167(g). Commercial Construction - 3 hrs .
Systems and procedures for constructing commercial and industrial structures. Includes site layout, foundations, structural systems, floor-wall-roof systems; exterior and interior finishing. Prerequisites: 33:166 and junior standing or consent of instructor.

## 33:169. Applied Photography - 4 hrs.

Photographic fundamentals; emphasis on photographic systems; electrical, optical, mechanical, chemical and light-sensitive component areas. Prerequisite: 33:020 or consent of instructor.
33:170. Statics and Strength of Materials - 4 hrs .
Testing, evaluating, and reporting material characteristics and strength, and probable usefulness in the construction of products. Prerequisite: 88:054 or departmental approval.
33:171. Technical Wort Experience - 2 hrs.
A supervised internship to gain practical occupational experience in the specialty area of approval. May be repeated once. Offered on CreditNo Credit basis only. Prerequisite: 1000 clock hours of approved work experience.
33:172(g). Industrial Materials - 3 hrs.
Introduction to the structure and properties of industrial materials and composites and their relation to manufacturing processes. Lab exercises include experimental analysis and testing of physical and/or mechanical properties of the materials. Prerequisites: 86:020 or 86:044; or consent of instructor; junior standing.

33:173(g). Construction Management - 3 hrs.
Project management concepts - analysis and application of critical path scheduling, site planning, labor relations, and field supervision. Prerequisites: 33:166; $33: 167$; or consent of instructor.
33:174. PL.U.S. Methodolo ${ }^{2} y$ and Conceptualization - 2 hrs.
Methods of information acquisition, processing and presentation for the conc tualization of a problem in power technology for individual or group investigation. Prerequisites: junior standing; 12 hours of 100 -level courses from the required technical core in the Energy and Power Technology Major, and consent of instructor.
33:176. PL.U.S. Development and Demonstration - 4 hrs.
The development of the problem identified in the P.L.U.S. Methodology ind Conceptualization phase through the developed prototype and presentation of the investigative results. Prerequisite: $33: 174$.
33:177(g). Industrial Plastics - 3 hrs .
Introduction to plastics; industrial molding, thermoforming, casting and coat. ing, reinforcing, foaming, joining, fastening. Prerequisite: $33: 011$ or consent of instructor.
33:180. Orientation to Industrial Vocational-Technical Trining - 2 hrs. A sequence of learning experiences enabling the participant to demonstrate preservice teaching competencies as required by the State Plan for the Administration of Vocational Education within Career Education for lowa.
33:181(g). Trade and Technical Courne Conatruction - 2 hrs.
Basic methods of identifying, analyzing, selectins, and organizing instructions content for vocational trade and technical programs. Prerequisite: junior stand ing or consent of instructor.
33:182(g). Coordination of Purt-time Industrial Education - 2 hrs.
Planning, organizing, developing, and teaching part-time cooperative industrit education programs. Prerequisite: junior standing or consent of instructor
33:184(g). Technical Program Development - 2 hrs.
Advanced methods of identifying, analyzing, selecting, and organizing instruc. tional content for technical programs. Prerequisite: $33: 181$ or departmental approval.
33:187(s). Applied Industrial Supervision and Management - 3 hrs.
Investigation of industrial supervision and management; includes directed field study in industry. Prerequisite: 15:153 or 33:143 or consent of instructor.
$33: 188(\mathrm{~g})$. Advisory Committees and Conference Leading - 2 hrs. Principles and practices for organizing, developing, and using the advisont committee in vocational technical education, utilizing conference procedurs and techniques. Prerequisite: junior standing.
33:190(8). Teaching Industrial Arts - 3 hrs.
Developing philosophy, contemporary curricula and teaching methods for ind trial arts education. Prerequisites: 20 hours in industrial technology incluc, 33:019; junior standing; or consent of instructor.
33:191(g). Methods of Teaching Trade and Technical Courses - 2 hra. Basic principles of instruction, instructional organization, methods of presen, tion, lesson planning and applications of audio-visual media. Prerequisite: junt, standing or consent of instructor.
33:192(g). Non-Destructive Evaluation of Materials (NDE) - 2 hrs.
Review and evaluation of the importance of non-destructive methodology product soundness as well as detailed theoretical and experimental description? the different NDE techniques used in industry. Prerequisites or corequisiti33:132 or $33: 172$ or consent of instructor, senior standing.
33:193(g). Evaluation in Vocational-Technical Education - 2 hrs . Basic concepts and techniques for evaluating students and programs in vocatio al-technical education. Prerequisites: $33: 181$ or departmental approval; junim standing or consent of instructor.
33:194(g). Graphic Arts Estimating and Management - 2 hrs.
Identification and determination of cost centers in the production of print products. Also principles and practices of managing a graphic arts busines Prerequisite: $33: 150 ; 33: 155 ; 33: 158 ; 33: 187$; or consent of instructor.
33:195(g). Managing Industrin Arts Laboratories - 2 hrs. Evaluating, planning and reorganizing industrial arts classrooms and laboratories, planning a safety program; budgets, records, inventory, equipment select' and maintenance, ordering equipment and supplies. Prerequisites: 33:1 senior standing; or consent of instructor.

33:196(g). 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.
33:197(d). Manufacturing Practicum - 3 hrs.
Application of knowledge and skills in manufacturing processes and management practices to selected production problems. Prerequisites: 33:144; $33: 145 ; 33: 146$; or consent of instructor.

## 33:198. Independent Studys

33:200. Industrial Technoloty Concepts and Issues - 2 hrs.
Survey of the major topic areas of industrial technology and the professional issues in the field with the development of a Personal Career Development Plan (PCDP) in respect to those concepts, issues and concerns. Prerequisite: departmental approval or permission of instructor.
33:214. Problems in Teaching Industrial Education - 4 hrs.
Educational problems selected according to interests and needs of students. Prerequisite: consent of instructor.
33:226. Foundations of Industrial Education - 4 hrs .
Leaders, movements, principles and curriculum techniques and trends.
33:228. Contemporary Theories - 2 hrs.
Practices and procedures in industry and education. Developments in technology.
33:270. Research Projects in Industrial Technoloy - 3 hrs.
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.
33:271. Industral Experience - 2-3 hrs.
An opportunity for industrial technology students to integrate classroom learning and experience in an industrial setting. Limited to master's degree candidates. Prerequisites: consent of adviser and coordinator of graduate studies.

## 33:280. Curriculum Implementation, Management and Eviluation in

 Industrial Technology - 3 hrs.Development of skills and techniques for successful installation, operation, and evaluation of a curriculum plan in industrial technology.
33:282. Industrial Technology Seminar - 1 hs
Selected problems relating to production systems, communication systems, and power systems. May be repeated for up to a maximum of four semester hours of credit.
33:284. Industrial Technoloty - 2 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.
33:290. Trining and Development in Industrial Technolo $\mathbf{~} 3 \mathrm{hrs}$.
The systematic application of training to enhance industrial productivity and development of the various techniques and skills to assess training needs, develop and evaluate training programs and manage the training process in an industrial environment.
33:292. Resenrch Methods in Industrial Technoloty - $\mathbf{3} \mathrm{hrs}$.
Principles of methods and evaluation of research in industrial technology. Individual exploration of possible projects or thesis topics.
33:294. Concepts of Technological Innovation - 3 hrs.
Concepts of research and development activity as an element in the industrial, govemmental and academic sectors are portrayed and analyzed. An overview of the basic aspects of directing research and development in the industrial impact of technological innovation as related to the industrial environment. Prerequisites: 33:292 or a research methods course.
33:299. Research.
33:375. Historical Developments in Industrial Technolozy - 3 hrs.
Development of production systems, communication systems, and power systems and their influence on society and the environment. Prerequisite: consent of instructor.
33:376. Contemporary and Future Developments in Industrial Technology -3 hrs .
A study with emphasis on production systems, communication systems, and power systems, and their interrelationship with people, society, and the environment. Prerequisite: 33:375.

33:377. Readings in Technology and Soclety - $\mathbf{3}$ hrs.
Current readings on technology and society, emphasis on analysis and discussion of the issues. Prerequisite: 33:376.
33:378. Technolody, Ethics and the Technologitat - 3 hrs.
Examines the values and ethics of a technological society and the input of the technologist into the decision-making process of a technological organization. Prerequisites: 33:375; 33:376; 33:377; or consent of instructor.
33:388. Internship - 6 hrs.
Offered in education and industry to provide practical experience in teaching, supervision, administration, or management. May be taken once in educational environment and once in industrial environment. Prerequisite: consent of instructor:
33:399. Research (Doctoral Dissertation).

## 35 Library Science

Note: All $\mathbf{1 0 0 ( g )}$ courses require at least junior standing.
35:010. Llbrary Orientation - 1 hr
Practical working knowledge of the library and its resources.

## 35:110(g). Libraries and Information Services - 2 hrs.

Historical development of libraries and graphic records; functions, organization patterns and services of different types of libraries.
35:112. Lborary Information Sources - 1 hr .
Utilization of indexes, documents, and reference sources in specific subject areas; performance of information searches on specialized topics. Open to juniors' seniors with declared majors. (Not open to library science majors or minors). 35:113(g). Llorary Media Selection - 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 - 3 hrs .
Application of descriptive cataloging rules; principles and use of the Dewey Decimal Classification and Sears subject headings; adaptations and procedures for all formats found in library media centers.
35:118(8). Reference - 3 hrs .
Study of basic reference sources, including introduction to question-nesotiation and searching strategies and to reference sewvices. Prerequisite: $\mathbf{3 5 : 1 1 3}$ or consent of instructor.
35:121(g). Introduction to the School Library Media Center - 3 hrs.
Presents the rationale for school library media centers, the forces which shape their development, and the tasks of acquisitions, processing, circulation, and collection maintenance. Includes observation and participation in a school library media center.
35:123(g). The Llbray Media Program and the Teacher - 3 hrs.
introduces to elementary and secondary teachers the school library media specialist and the library media center, its program and materials. (Not open to library science majors or minors.)
35:132(g). Lbrary Materials for Children - 3 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). Llbrary Materials for Young Adults - 3 hrs.
Selection and evaluation of curricular-related materials for secondary school student's reading, viewing and listening interests, habits, and needs.

## 35:210. The Profession of Librarianship - 1 hr

The professional nature of library and information science, the literature and organization of the field, and past and present educational requirements and practices. Prerequisite: 35:110.
35:223. School Lhorry Media Services - 3 hrs.
Survey of services available in a library media center, and techniques used in interpreting services to students and teachers. Prerequisites: 35:121; 35:132 or 35:134.
35:225. Administration of the School Lloray Media Center - 3 hrs.
Special problems in organization and administration of library media centers. Prerequisites: 35:113, 35:121, and at least one other library science course.

35:230. Computer Applications in Libraries - 3 hrs.
Emphasis on applications of computers in libraries for: the acquisition, indexing, cataloging, retrieval, and dissemination of information and materials; the instruction of students; and resource sharing networks. Prerequisites: 35:113; 35:115; 35:118.
35:234. History of Books - 2 hrs.
Development of the book in various forms. History of the alphabet and writing; early writing materials; development of printing; and book publishing.
35:236. History of Children's Litenture - $\mathbf{3}$ hrs.
Traces development of literature for children. Emphasis on significant authors, illustrators, and titles. Prerequisite: 35:132 or consent of instructor.
35:241. Topics tu Library Materials - 3 hrs.
Selected aspects of K-12 school library media center materials. Participation in structuring learning experiences based on student needs and interests. Prerequisites: $35: 113 ; 35: 132$ or $35: 134$ or consent of instructor.
35:285. Individualizod Realines- $1-3 \mathrm{hrs}$.
Directed study of specific issue of problem based on students needs or aspirations. Prerequisite: written consent of department head.
35:289. Seminar - 2-3 hrs.
Critical assessment of the elements of school library media services at the building and system levels. Prerequisite: 35:225 or consent of instructor.
35:290. Practicum - 1-4 hrs.
Experience in the function and services of the school library media center. Prerequisite: written consent of department head.
35:295. Research in Lbrary and Information Science - 3 hrs .
Basic techniques of research methodolog; historical, descriptive, and experimental; includes critical evaluation of library/media center studies and their influence on, or application to, services, organization, and administration.
35:299. Research.

## 40 Psychology

40:008. Introduction to Paycholosy - 3 hrs.
Provides a foundation for psychological understanding. Course requires either (1) participation as a subject in psychological research, or (2) an alternative acceptable to both the student and the department which provides a similar educational experience.
40:015. Sleep and Dreams - 3 hrs .
A survey of the processes of sleep and sleep mentation (dreams) and related psychological and physiological disorders. Prerequisite: 40:008.

## 40:045. Research Methods - 4 hrs .

Introduction to fundamentals of psychological inquiry. Emphasis on experimental research but all major approaches (correlational, field, clinical, phenomenological) considered. Prerequisites: 40:008 and two electives in psychology.

## 40:049. Paychological Stattstics - 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 the laboratory and survey work and to provide adequate quantitative background for understanding psychological literature. Prerequisites: 40:008; 40:045; and 80:040 or permission of instructor

## 40:104. Psycholody of Adfustment - 3 hrs .

The study of "normal" adjustment problems encountered in our everyday lives. Topics include: fear and anriety, sleeping difficulties, sexual adjustment, self control, interpersonal relations, adjustment at work, social adjustment, love, marriage, and parenting. Prerequisite: 40:008.
40:106(s). Paycholoty of Human Differences - 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; junior standing or consent of instructor.
40:110. Paycholoy of Sex Differences - 3 hrs.
Survey of theory and data available regarding the psychological, biological, and sociological differences between the sexes; special emphasis on expanded sex roles for men and women in contemporary society. Prerequisite: 40:008.

40:118(g). History and Systems of Peycholom - 3 hrs .
The history of psychological thinking with emphasis on developments since 18. Prerequisite: one course in psychology or departmental approval; junior standi' or consent of instructor.
40:120. Introduction to Developmental Paycholody - 3 hrs .
Theory and research methods used in study of development of organism (especially human); developmental perspective as part of the process of psychei logical inquiry. Prerequisite: 40:008 or equivalent.
40:123. Introduction to Behavior Modification - 3 hr . Behavioral approach to behavior change based upon learning principles. Stressen analysis of ongoing behavior and the means of implementing change in a varie of everyday situations. Prerequisite: 40:008 or equivalent.
40:125(g). Child Paychopetholoty - 3 hrs.
Overview of childhood problems ranging from minor problems in adjustment 4 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 $c$ d instructor, junior standing.
40:127(g). Introduction to Neurolo y - 3 hrs .
Introduction to basic nervous system structure and function including the neuron, peripheral newvous system, the senses, the brain stem, neural control of movement and coordination, the forebrain and its specific functions, and but coverage of methods of study and clinical neurology. Prerequisite: junior standit and consent of instructor.
40:130. Computer Programming for Psychological Applications - 2 hrs. FORTRAN programming and utilization of library programs and systems. Statistical analysis and related problems common in psychological applications. Prereq uisite: one course in statistics recommended. Laboratory. No credit for student who has credit in 80:070.
40:142(8). Abrorvan Paycholo - 3 hrs.
Causes of abnormal behavior. Characteristics of major abnormalities. Classificm tion of organic and functional disturbances. Prerequisites: 40:008; junior standing.
40:145. Animal Conditioning Laborntory - $1-2$ hrs.
Primarily operant conditioning procedures but some training in instrumental ch classical conditioning techniques. Evaluation on basis of data collected and understanding of change in behavior For two hours of credit more detailed lab reports are required. Prerequisite: 40:045.
40:149(1). Princlples of Paychological Testing - 3 hrs.
Principles of design, construction, evaluation, and interpretation of psycholodim tests. Prerequisites: 40:049; junior standing or consent of instructor. No gradus credit for graduate students in psychology.
40:150. Condtitioning and Learning - 3 hrs.
Basic concepts and processes in learning. Prerequisite: 40:045.
40:152(g). Sensation and Perception - 3 hrs .
Sensory and perceptual processes and states with emphasis on visual experienc Prerequiste: 40:045; junior standing or consent of instructor.
40:153(g). Thourght and Language -3 hrs .
A study of complex human behavior with emphasis on cognitive variable intervening between the observable stimulus and response. Includes the topics? language, thinking, concept formation and problem solving with related motivetional constructs. Prerequisite: 40:045; junior standing or consent of instructoy 40:155. Physiologleal Paycholoty - 3 hrs.
Neurobiological basis of behavior; how human brain receives sensory inputh, 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 consent of instru tor
40:157(g). Personnel Paycholoty - 3 hrs.
Processes imvolved in recruiting, selecting, training, and evaluating employees all types or organizations; underlying assumptions and current techniques use. Prerequisites: 40:008 or equivalent, junior standing or consent of instructien
40:158(g). Organizational Paycholody - 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 ust applications of theories. Prerequisites: 40:008 or equivalent; junior standing it consent of instructor.

40:160. Introductory Social Psycholosy - 3 hrs.
Overview of social psychology from perspective of general psychology; includes social perception, attraction and liking; affiliation, social influence, group dynamics, and attitude formation and change. Prerequisite: 40:008 or equivalent.
40:161. Psycholody of Personality - 3 hrs .
An introduction to major theoretical models of personality and to applications derived from these theories, and an overview of empirical findings in selected topics in personality. Prerequisite: 40:008.
40:162(g). Soctal Psycholoy - 3 hrs .
Methods involved in social psychological research. Emphasis on the design and use of questionnaires. Includes some work with computers. Prerequisite: 40:049; junior standing or consent of instructor.
40:163(g). Developmental Psycholoty - 3 hrs .
Research and theories on the processes of development. Prerequisites: 40:045; 40:049; 40:120; junior standing or consent of instructor.
40:165. Physiological Poycholoty Laboratory - 2 hrs.
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 consent of instructor.

## 40:166(g). Clinical Paycholo\$y - 3 hrs.

Contemporary practice of clinical psychology with emphasis on the theories and techniques of behavioral assessment. Prerequisite: junior standing or permission of instructor.
40:170(g). Drugs and Individual Behavior - 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:
40:171(g). Advanced Behavior Modification - 3 hrs .
Current approaches to modifying human behavior, focusing on a cognitive learning perspective. Includes: behavioral self-control, biofeedback, and assessment and modification of addictive behavior. Prerequisites: junior standing; 40:123 or consent of instructor.
40:173(g). Psycholoty of Aging - 3 hrs.
Analysis of the factors affecting the aged individual. Emphasis on physiological, cognitive, sensory, personality and interpersonal changes occurring with age. Prerequisite: 40:008 or equivalent; junior standing or consent of instructor.
40:175. Environmental Psycholo - 3 hrs.
Survey of broad range of interactions between people and everyday, intact settings; specific attention to the evaluation of the effects of the characteristics of such settings on behavior Prerequisite: 40:008 or equivalent.
40:189(d). Seminar in Paycholoty - 13 hrs .
Provides opportunity to correlate previous course work and knowledge in field of psychology. Prerequisites: 15 hours in psychology, including 40:045 or consent of instructor. May be repeated for up to 6 hours of credit.
40:190(s). Pre-Clinical Practicum - 3 hrs.
Field placement in a mental health or social service agency under supenvision. Prerequisites: junior standing; 40:142, 40:166.
40:192(g). Practicum in Teaching Psycholoty - 2.3 hrs.
Organization and teaching of psychology; student serves as participant-observer, with advance approval, in any $40300 \times$ course.
40:193(d). Research Experience in Paycholoy - 13 hrs .
Research participation and/or independent supervised research. A total of six semester hours of credit may be allowed. Prerequisites: 40:049; 15 hours in psychology and permission of the department.
40:225. Advanced Paychopatholoy - 3 hrs.
An examination of alternative models of psychopathology with emphasis on genetic, physiological, and developmental determinants of behavior disorders. Review of the empirical literature on the etiology, maintenance, and treatment of disordered behavior: Prerequisites: graduate standing in psychology or permission of the instructor.
40:239. Advanced Statistics and Research Design - 3 hrs.
Review of elementary descriptive and inferential statistics, analysis of variance and covariance models, multiple linear and curvilinear regression models, the generalized linear model, and an introduction to robust estimation.
40:240. Learning - 3 hrs .
Empirical and theoretical approaches to animal and human learning covering topics in classical and instrumental conditioning. Prerequisite: graduate standing in psychology or permission of instructor.

40:249. Cognitive and Intellectual Assessment - 3 hrs .
An introduction to the nature, use, and interpretation of tests for assessing intelligence and cognition in varied populations in this and other cultures. Prerequisite: graduate standing in psychology or permission of the instructor.
40:250. Codnition - 3 hrs.
Survey of contemporary (and historical) approaches to mind, including findings and methods of psycholinguistics, information processing, computer simulation, structuralism, and experimental cognitive psychology. Prerequisite: graduate standing in psychology or permission of instructor.
40:251. Paychological Measurement - 3 hrs.
Scaling, psychometric methods and selected topics in multivariate analysis. Prerequisite: 40:239.
40:260. Persomality - 3 hrs .
A comparative study of major personality theories and techniques of personality assessment. Prerequisite: graduate standing in psychology or permission of instructor.
40:262. Perconality Assessment - 3 hrs.
An overview of theoretical and empirical issues in the measurement of personality. Considers reliability and validity of projective and actuarial methods of personality assessment, and criticism of personality assessment, and provides an introduction to the theory and techniques of behavior assessment as an alternative to traditional trait and psychodynamic approaches. Prerequisite: graduate standing in psychology or permission of the instructor.
40:289. Seminar
40:297. Practicum.
40:299. Research.

## 41 Health

41:010. First Aid and Personal Safety - 1-2 hrs.
May be offered as (1) Standard FirstAid for one credit, (2) Instructor's First Aid for one credit, or (3) may be offered as a combined course for two (2) credits. American Red Cross certification for those who qualify.
41:015. Personal Health - 2 hrs.
Designed to develop the understandings, attitudes, and practices which contribute to better individual health.
41:020. Maternal and Infant Health - 2 hrs.
introduction to and preparation for the events surrounding motherhood; emphasis on conception, pregnancy, prenatal health care, childbirth, and development of early infant-handling skills.
41:060. Medical Terminoloy - 1 hr
Basic terminology and vocabulary used in medical field: structural organization of the body, major anatomy, medical procedures and instrumentation, and medical specialties.
41:072. Cardine Life Support-CPR - 2 hrs.
Knowledge and skills necessary for proper performance of cardiopulmonary resuscitation. May qualify for American Heart Association certification. May be offered as: (1) Basic Rescuer's course for one (1) hour credit; (2) Instructors course for one (1) hour credit; or (3) as a combined course for two (2) hours credit.
41:120(g). Death Education - 2 hrs .
Examines the need for death educators to be personally comfortable with thanatology. Knowledge of death concept development among children, methods and ethical issues related to death education with child and adult populations. Prerequisite: junior standing.
41:138(g). Trends and lssues in Sex Education - 2 hrs.
Current trends and issues affecting design and implementation of school and community sex education programs. Includes: curriculum development; administrative, parental, and community support; and professional preparation of sex educators. Prerequisites: 41:105 or equivalent; junior standing.

## 41:140. School Heath Education Methods - 2 hrs.

Concepts of structure for an effective program; learning process; development of learning objectives; use of instructional aids; pupil evaluation.
41:142(g). Health Problems in the School - 2 hrs.
Awareness of student health and health problems; emphasis on prevention of health problems, class emvironment, communicable diseases and control and effective teacher referral within the school and to community health agencies. Prerequisite: junior standing or consent of instructor.

41:144. Curricular Materials in Health Education - 2 hrs.
The evaluation, selection, and development of materials in school health as they relate to specific methods.
41:146(s). Current lssues in Health - 3 hrs.
Current health topics which are affecting individuals, communities, and the nation or world at large. Includes prevention and/or control of negative health effects of the issues covered. Prerequisite: junior standing.
41:148(8). Administration of School Health - 3 hrs.
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 for the school and community to work together. Prerequisite: junior standing.
41:153(g). Theoretical Foundations of Health Education - 2 hrs .
Selected social, behavioral, and communication theories underlying health education practice; emphasis on implications for health education. Prerequisites: 20:030 or 40:008; junior standing.
41:156(g). Changtng Health Behavior - 2 hrs.
Analysis of health behavior and current theories and approaches to healthbehavior change; emphasis on developing skills necessary to facilitate personal health behavior change. Prerequisite: junior standing.
41:158(g). Health Rist Appraisal - 1 hr
Use of surveys and inventories to raise awareness of health risks and assess seriousness of health risks. Prerequisite: junior standing.
41:160. Community and Public Health - 3 hrs.
Public health activities concerned with protection and care of the individual; focuses on factors that may be inimical to human beings. Prerequisite: junior standing.
41:162. Women's Health - 2 hrs.
A study of contemporary issues in women's health. Includes consumerism, feminism, the physician-patient relationship in the gynecological, family, and general practice settings, woment health development and maintenance, health and counseling services available for women.
41:163. Human Diseases - 3 hrs.
Systemic approach to study of human diseases emphasixing the chronic/ degeneration disorders afflicting humans. Current trends in diagnosis, treatment, and preventive measures. Prerequisites: 84:031; junior standing.
41:164. Consumer Health - 2 hrs.
Issues surrounding the purchasing of health goods and services: quackery, nontraditional health care and sources of consumer protection in the health marketplace.

## 41:168. Fleld Experience in Community Health Education -6 or 12 hrs .

Experience in area of student's career objectives. Offered on ungraded (credit/no credit) basis only. Prerequisites: senior standing and approval of Health Coordinator. Corequisite: 41:189.
41:172(s). 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 hr ; lab., 3 hrs . Prerequisite: junior standing or consent of instructor.
41:175(g). Prevention and Care of Athletic Infuries - 2 hrs.
Prevention, evaluation, first aid, supportive measures, and care of athletic injuries. Nutrition, facilities, and equipment. Discussion, 1 period; lab., 2 periods. Prerequisite: junior standing or departmental approval and 42:050 or 84:031.
41:176(g). Health Education Planning and Evaluation - $\mathbf{3}$ hrs.
Planning and evaluation from diagnostic approach; assessment of social, epidemiological, behavioral, educational, and administrative factors in health education programming, as well as impact and outcome evaluation. Prerequisites: $25: 180 ; \mathbf{4 1 : 1 5 3 ;}$; junior standing.
41:182(8). Recognition and Evaluation of Athletic Infuries - 2 hrs .
No credit for student with credit in 37:162. Prerequisites: 42:050 or 84:031; 42:151; 41:175.

41:183. Remedial Ezercises for Athletic Injuries - $2 \mathbf{h r s}$.
Theory and practice in developing individualized exercise programs used in injury rehabilitation. Prerequisites: 42:125 or 42:153; 41:182.
41:184(8). Modalities in Athletic Trining - 2 hrs.
Physiological effects, indications and contraindications, and the physics of modalities used in injury rehabilitation. Prerequisites: 42:050; 42:151; 41:175.

41:185. Readings in Heath Education - $1-4$ hrs.
Credit based on student's proposal; to be determined at time of registration Written contract will determine appropriate work load under credit guidelinem Prerequisite: approval of instructor.
41:187. 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: 42:050; 42:151; 41:175.
41:189. Seminar in Community Health Education - 3 hrs.
Complements field experience in community health education. Focus on issues in community health education and the transition from student role to health educator role. Prerequisite: senior standing; corequisite: 41:168.
41:255. Health Promotion/Risk Reduction - 3 hrs.
Survey of models for health promotion, indicators of health risk, and approach to health in the market place.
41:271. Cardiovascular Physioloty - 3 hrs.
An in-depth study of the functioning of the cardiovascular and respirato systems in the diseased and non-diseased state. Included as major topics will be functional anatormy, cardiorespiratory control, arterial pressure, responses to exercise, electrical activity, and the effects of disease processes. (Cross listed as 42:271.)
41:272. Evaluation of Electrocardiograms - 2 hrs .
Study of the electrocardiogram, including leads in common use, cardiac rhythy and rate, normal and abnomal complexes, electrical axes, and genesis a precordial pattern, bundle branch -blocks, arrhythmias, and infarctions. (Cross listed as 42:272.)
41:275. Cardiovascular Stress Testing -2 hrs .
Principles of graded exercise testing including test selection, population selection, ergometer selection, and test interpretation. Experience in test administration. Students are required to participate in the testing of cardiac patients. (Crows listed as 42:275.)
41:277. Organization and Administration of Cardiac Rehabilitation Programs -2 hrs .
Concepts, principles and skills for administration of a rehabilitation program for post-coronary patients; particular emphasis on a Phase III program. (Cross listed as 42:277.)
41:285. Readings - $1-4$ hrs.
41:289. Seminar.
41:290. Philosophy and Ethics of Health Education - 3 hrs.
Analysis of philosophical and ethical issues in health education.
41:293. Epldemioloty for Health Education - 3 hrs.
Principles and methods of epidemiology; application to health education programming. The distribution of disease and the search for determinants of the observed distribution.
41:295. Internshtp in Health Education - 2 hrs.
Health program experience with agencies other than the college or university May be repeated once for credit. Prerequisite: consent of coordinator of health division.
41:297. Practicum - 2-3 hrs.
41:299. Research.

## 42 Physical Education

42:001. Physical Education -1 hr
Work may be selected from activities as listed in the Schedule of Classes Primarily for General Education. May be repeated.
The following six courses provide the development of fimdamental skills and instructional techniques in the specified activities:
42:011. Fundamental Physical Activities - Aquatics - 1 hr
42:012. Fundamental Physical Activities - Conditioning - 1 hr
42:013. Fundamental Physical Activities - Dance - 1 hr
42:014. Fundamental Physiol Activities - Cymanatics - 1 hr
42:015. Fundamental Physical Activities - Individual/Dual - 1 hr .
42:016. Fundamental Physical Activties - Team - 1 hr

42:031. Dance Chorootrophy - 1 he
Application of art principles basic to good choreography; advanced technique and composition. Prerequisite: beginning modern dance or equivalent.
42:032. Advanced Foll Dance - 1 hs
Basic and advanced folk dance skills and dance. Prerequisite: beginning folk dance or equivalent.
42:040. Participation with Students -1 hr
Experiences working with elementary and/or secondary school students in activities involving physical movement. Prerequisite: departmental approval. May be repeated once for credit.
42:043. Methods and Movement Experiences for Children I - 2 hrs. Philosophy, objectives, and content of physical education for elementary school children; includes movernent education, fundamental movement actions, and rhythmic activities. Exploration method emphasized. 3 periods. Prerequisite: sophomore standing. Prerequisite or corequisite: 42:013.
42:044. Methods and Movement Experiences for Children II - 2 hrs. Exploration of growth and development; emphasis on educational gmnastics theory and progression, theory and concepts of teaching games and sports to K-6 children, and curriculum development. 3 periods. Prerequisite: 42:043. Prerequisite or corequisite: 42:014.
42:045. Physical Education for the Elementary Grades - 2 hrs . Teaching methods and experience in activities. 3 periods. Prerequisite: sophomore standing.
42:050. Anatomy and Physiolody for Physical Education - 3 hrs.
Structure and function of skeletal, muscular, cardiovascular, respiratory and gastrointestinal systems.
42:055. Motor Learning and Performance - 2 hrs.
Study of perceptual/motor characteristics of individuals performing and learning movement skills. Variables which influence motor skill acquisition with emphasis on those which are within the teacher's control. Prerequisite or corequisite: 40:008.

The following twehe courses provide for the development of a high level of performance and comprehensive understanding and hnowledge pertinent to the specific actüty.
42:101. Advanced Skill and Coaching Theory - Baseball - 2 hrs.
42:102. Advanced Skill and Coaching Theory - Basketball - 3 hrs.
42:104. Advanced Skill and Coaching Theory - Football - 3 hrs.
42:016 (Foothall) recommended to precede.
42:105. Advanced Skill and Cosching Theory-Colf - 2 hrs.
42:106. Advanced Skill and Cosching Theory - Gymnastics - 2 hrs.
42:107. Advanced Sldll and Cosching Theory - Soccer - 2 hrs.
42:108. Advanced Skill and Coaching Theory - Softhall - 2 hrs.
42:109. Advanced Skill and Coaching Theory - Swimming - 2 hrs.
42:110. Advanced Skill and Coaching Theory - Tennis - 2 hrs.
42:111. Advanced Skill and Coaching Theory - Tract and Field - 2 hrs.
42:112. Advanced Skill and Coaching Theory - Volleyball - 2 hrs.
42:113. Advanced Skill and Caaching Theory - Wresting - 2 hrs.
42:117. Sports Officiating - 1 hr
Rule interpretation and mechanics of officiating for (1) basketball, (2) field hockey, (3) football, (4) softball, (5) swimming, and (6) volleyball. Primarily for physical education majors, coaching minors, and intramural officials. May be repeated in different activities up to 5 hours.
42:118. Practicum in Conching - 1-2 hrs.
Practical experience working with high school coaches; planning and conducting all phases of the program. May be repeated in a different sport for a total of two sports. Prerequisites: junior standing and departmental approval.
42:120. Orfanieation and Administration of Aquatic Proprums - 2 hrs . Administration of programs, personnel, and facilities; includes pool management and maintenance.
42:122. Theoretical Concepts of Cosching - 2 hrs.
Introductory philosophical aspects of sport, psychological and sociological dimensions of competitive sport experiences.

42:124(g). Anatomy and Khnestoloy - 2 hrs .
Attention to the skeleton, the muscular system, and to joint construction. Application to analysis of skills and techniques used in coaching. (For coaching minors.) No credit for students with credit in 42:050 and 42:151. Prerequisite: junior standing.
42:125. Conditioning Theory and Practice - 2 hrs.
Theory and practice in training and conditioning of athletes. 2 periods. (For coaching minors.) No credit for students with credit in 42:153.
42:127(g). Organization and Administration of Competitive Sports - 2 hrs . The organization, administration, and management of interscholastic, intercollegiate, and intramural sports programs. Prerequisite: junior standing.
42:129(g). Advanced Sports Theory - 2 hrs .
Advanced methods course on coaching concepts in specific sports: (1) baseball; (2) basketball: (3) field hockey; (4) football; (5) golf; (6) gymnastics; (7) soccer; (8) softball; (9) swimming; (10) tennis; (11) track and field; (12) volleyball; (13) wresting. May be repeated for a maximum of six hours of credit. Prerequisite: department head approval for undergraduates.
42:132. Dance Curriculum - 2 hrs .
Place of dance in the school curriculum; relationships; progressions, and curriculum building.
42:134. Methods in Dance - 3 hrs .
Methods and materials in the elementary and secondary school. 4 periods.
42:135. Dance Production and Performance $\mathbf{- 2}$ hrs.
Application of technical considerations, costume design, accompaniment, and program planning. Practical application of choreography and/or lecture demonstration in a dance form expected. Prerequisite: 42:013 or equivalent.
42:136. History and Philosophy of Dance - 2 hrs.
From primitive ritual to the art forms of the twentieth century.
42:145(g). Development Aspects of Movement Performance - 2 hrs.
How motor skills change with time; nature of factors effecting change; relationship of motor development to totai human development; principles of motor development related to teaching motor skills. Prerequisite: junior standing.
42:151. Kinesloloy - 3 hrs.
Application of principles of mechanics to body movement. Discussion, 2 periods; lab., 2 periods. Prerequisite: 42:050 or equivalent.

## 42:152(g). Adapted Physical Education - 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. Prerequisite: $42: 151$; junior standing or consent of instructor
42:153(g). Physiology of Exercise - 3 hrs.
Effects of exercise upon organic functions of the body. Discussion, 2 periods; lab., 2 periods. Prerequisite: 42:050 or equivalent; junior standing or consent of instructor.
42:154. Psychological Skills for Sport Participants - 2 hrs.
Understanding of psychological factors which affect performance in competitive sport. Survey of and individualized practice with psychological techniques designed to enhance sport performance.
42:156. Fitness Assessment and Programming - 2 hrs.
Assessment of fitness levels and application to fitness programming including remediation of dysfunction in rehabilitation. Prerequisite: 42:153.

## 42:157. Adapted Aquatics $-2 \mathbf{h r}$

Teaching swimming to disabled persons. Discussion, 1 period; lab., 2 periods. Prerequisite: W.S.I for A.R.C. certification.
42:160. Nature and Scope of Physical Education - 2 hrs.
Meaning and significance of physical education including historical, philosophical, and scientific considerations. Prerequisite: junior standing.
42:163. Methods and Materials in Secondary Physical Education - 2 hrs.
Role of the teacher in planning and teaching physical education in the secondary schools; includes instructional techniques and materials, organization and management. Three periods. Corequisite: 42:168.
42:168. Assisting in Physical Education - 1 hr
Assisting departmental instructor in activity classes. Prerequisite: department approval. May be repeated once for credit.
42:174. Assessment Processes in Physical Education - 2 hrs .
Statistical analysis; construction of evaluative instruments; and application of written and performance tests. Prerequisite: 25:050.

42 Physical Education/43 Recreation

## 42:176. Administration and Curriculum Development in Physical Education

 -3 hrs .Administration of programs in the elementary and secondary schools including budgeting, facilities, legal considerations and support services. Design, development and evaluation of curriculum content for grades K-12. Prerequisite: senior standing.
42:185. Readings in Physical Education - 14 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.
42:198. Independent Study.
42:200. Computer Applications in Physical Education - 2 hrs .
Microcomputers and their use in physical education and sports medicine. Pundamentals of programming, data and file management, programmed communication, and survey of available software. Interactive computing for the use of major statistical programs.
42:222. Sport Paycholoty - 3 hrs.
Current sport psycholoy research and its relevance to coaches and athletes. Emphasis is given to the areas of sport personology, competitiveness, motivation, attention, self-concept, attitudes, competitive anxiety, and goal-setting. Stress management techniques and other psychological skills applicable to the sport setting.
42:230. Curriculum Theory and Desifin in Physical Education - 3 hrs.
Curriculum planning and development with emphasis on recent models for curricular decisions; the selection and sequencing of developmentally appropriate activities across the elementary, middle school and high school curricula.
42:251. Blomechanics - 3 hrs.
Application of mechanical principles and concepts to human movement; principally concerned with the analysis of techniques employed in sports. Credit in 37:251. Prerequisites: 42:050; 42:151; or equivalent.
42:253. Advanced Exercise Physioloyy - 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.
42:255. Motor Learning - 3 hrs.
Study and application of Research findings to motor learning and the variables which influence it.
42:271. Cardiovascular Physioloyy - 3 hrs .
An in-depth study of the functioning of the cardiosvascular and respiratory systems in the diseased and non-diseased state. Included as major topics will be functional anatomy, cardiorespiratory control, arterial pressure, responses to exercise, electrical activity, and the effects of disease processes. (Cross listed as 41:271.)
42:272. Evaluation of Electrocardiograms -2 hrs.
Study of the electrocardiogram, including leads in common use, cardiac inythm and rate, normal and abnormal complexes, electrical axes, the genesis of precordial pattern, bundle branch -blocks, arrhythmias, and infarctions. (Cross listed as 41:272.)
42:273. Contemporary Issues tn Physical Education - 3 hrs.
Examination and analysis of continuing concerns and issues in the profession.
42:274. Measurement and Eveluation in Physical Education - 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.
42:275. Cardiounscular Stress Testing - 2 hrs.
Principles of graded exercise testing including test selection, population selection, ergometer selection, and test interpretation. Experience in test administration. Students are required to participate in the testing of cardiac patients. (Cross listed as $41: 275$.)
42:276. Superviston of Physical Education - 2 hrs.
Analysis of current supervisory practices and problems of teaching in physical education.
42:277. Ongmatation and Administration of Cardiac Rehabilitation Programs $-2 \mathrm{hr}$.
Concepts, principles and skills for administration of a rehabilitation program for post-coronary patients; particular emphasis on a Phase III program. (Cross listed as $41: 277$.)

42:285. Readtags in Physical Education - 1-4 hrs.
42:289. Physical Education Seminar - $1-3 \mathrm{hrs}$.
Special topics as indicated in the Schedule of Classes.
42:290. Research Methods in Physical Education - 3 hrs.
Introduction to processes of research in physical education, emphasis on critical analysis of literature and identification of viable research projects.
42:295. Internehtp in Physical Education - 2-4 hrs.
Experience in physical education programs with agencies other than in higher education. Prerequisite: consent of the graduate coordinator.
42:297. Practicum - 23 hrs .
Practical experience in teaching physical education at the college level.
42:299. Research.

## 43 Recreation

43:010. Introduction to Recreation - 1 hr
Orientation to the profession, includes history, philosophy, trends, and opportunities in recreation professions.
43:020. Recreational Leadership - 2 hrs.
Theories, principles, and practices of recreational leadership; techniques and methods of working with individuals and groups. Corequisite: 43:021.
43:021. Activity Leadershitp Laborntory - 1 hr
Methods and practice in leading recreational activities in social recreation, sporty, games and dance. Corequisite: 43:020.
43:030. Recreation for Specil Populations - 2 hrs.
Techniques of adapting recreation programs to meet the leisure needs of special populations in today's society. Corequsite: 43:031.
43:031. Fieldwork: Spectal Populations - 1 hr:
Observational and/or practical field experiences in recreation programs for special populations. May be taken during freshman year, must be taken on "ungraded" (credit/no credit) basis. Corequisite: 43:030. Primarily for Recreation majors.
43:040. Community Recreation - 2 hrs.
Introduction to community recreation through study of interrelationships of municipal, school, park, and agency programs.
43:041. Fieldwork: Communtly Recreation - 1 hr
Observational and practical field experience in community recreation. May be taken during freshman year; must be taken on "ungraded" (credit/no credit) basis. Primarily for Recreation majors. Prerequisite: 43:020 and 43:040.
43:110. Recreation Progrom - 3 hrs.
Methods of planning, implementing, and evaluating recreation programs. Prerequisites: 43:020; 43:030; 43:040 (one may be corequisite).
43:112. Campus Recreation Programming - 2 hrs.
The organization, planning, and carrying out of programs in assigned, campus recreation programs. Prerequisite: 43:110.

## 43:114. Basic Princtples of Supervision-Administration in Recreation

 - 3 hrs .Principles of supervision and administration as applied to recreational settings. Prerequisites: 43:020; 43:030; 43:040 (one may be corequisite).
43:120. Administrative Practices in Community Recreation - 2 hrs.
Techniques involved in directing and administering community recreation programs. Prerequisite: 43:114.
43:123. Foundations of Thempeutic Recreation - 2 hrs .
History, philosophy, theories, professionalism of therapeutic recreation; factors influencing service delivery. Includes observation of human service clinicians Prerequisites: 43:030; junior standing in Therapeutic Recreation.
43:140. Camp Leadership - 3 hrs.
The camping movement. Leadership techniques and laboratory experience. Discussion, 2 periods; lab., 2 periods.
43:141. Camp Counseling (Fieldwort) -2 hrs.
Supervised counseling experience in an organized camp. Prerequisite: consent of Recreation coordinator.
43:142. Outdoor Education - 2 hrs.
The use of out-of-doors leaming experiences to enhance education. Administretion and program of school camping.

43:144(8). Camp Administration - 2 hrs .
Techniques of site and program development, and organization and administration of agency, private, church, school, and commercial camps which are utilized for outdoor recreational pursuits. Prerequisites: 43:140; junior standing or consent of instructor.
43:160(g). Thernpeutic Recreation Programming - 2 hrs .
Methods and techniques used in therapeutic recreational services to meet the leisure needs of members of special populations. Prerequisite: 43:164. Corequisites: 43:161; 43:162; 43:163.
43:161(g). Thenpeutic Recreation (Fieldworls) - 1 hr
Laboratory course; provides supervised practical experience in an institutional setting. Corequisite: 43:160.
43:162. Assessment and Evaluation in Therapeutic Recreation - 2 hrs.
Knowledges and procedures for selection and interpretation of results of a variety of tests and assessment tools related to therapeutic recreation programming. Prerequisites: 42:124; 31:005. Corequisites: 43:160; 43:163.
43:163. Management of Therapeutic Recreation Services - 2 hrs.
Knowledges and techniques for management of therapeutic recreation including legal and financial problems, utilization of human resources, and development of public relations. Corequisites: 43:160; $43: 162$.
43:164. Physical Activities for the Disabled - 2 hrs.
Role of physical activity for the education and recreation of the handicapped. Appropriate assessment, activity, leadership, and evaluation techniques; includes laboratory experience. Prerequisites: 43:030 or 22:150; junior standing or consent of instructor.
43:165. Lelsure Services Field Experience - $1-3$ hrs.
Supervised observation and leadership experience in a designated program area - aquatics, art, camping, dance, fitness, music, rehabilitation, sports or theatre. May be repeated in different areas for a total of 3 hours. Prerequisite: 43:031; 43:041.
43:166(g). Lelsure and Agting - 2 hrs.
Role of recreation and leisure in understanding and working with the older adult in community and institutional settings. Prerequisite: junior standing or consent of instructor.
43:184. Senior Project in Recreation - 1 hr
Programming project to be completed at practicum site; written and oral presentation required during practicum semester Corequisite: 43:187. Prerequisite: consent of coordinator.
43:185. Readings in Recreation - $1-3 \mathrm{hrs}$.
Individual study in an area of recreation. Credit to be determined at time of registration; to be based on student's proposal. Requires approval of instructor.
43:187. Prncticum in Recreation - 14 hrs.
Comprehensive fieldwork experience in area of student's concentration. Prerequisites: 43:189; 500 hours of certified practical experience of which 200 hours must be in area or major. Corequisite: $\mathbf{4 3 : 1 8 4}$. Must be taken on ungraded (credit no credit) basis.
43:189. Seminar in Recreation - 1 hr
Study of professional issues; orientation to practicum. To be taken immediately prior to practicum. Prerequisites or corequisites: 43:160 or 43:120; and consent of instructor.

## 45 Social Work

45:040. The American Soctal Welfare Institution - $\mathbf{3}$ hrs.
Historical development of social welfare services in the U.S., societal values and philosophies which underlie them, and the emergence of the profession of social work. Survey of present day social welfare systems, including the U.S. Social Security Act, and the problems with which they deal.
45:042. Social Services and Social Wort - 3 hrs.
Legal aspects, goals, and values of the social work profession, and roles of the social worker in social service agencies; includes a volunteer experience in an agency. Prerequisites: 45:040; 98:060 (may be corequisite) or consent of instructor
45:091. Social Wort Practice I - 3 hrs .
Analysis of the principal social work methods - casework, group work and community organization. Prerequisites: 45:040; 45:042 (may be corequisite) or consent of instructor
45:121(s). Mental Deviance and Mental Health Institutions - 3 hrs.
Prerequisites: junior standing; 98:060 or consent of instructor (Same as 98:121).

45:142(g). Working With Racil and Ethnic Minorities - 3 hrs .
Eramination of values and behaviors related to ethnic group membership and social class. Utilization of such knowledge for problem assessment and intervention. Development of ethnic-sensitive practice skills. Prerequisites: 45:040 and junior standing, or consent of instructor.
45:143. Stress and Stress Management in the Helping Professions - 3 hrs . Stress and stress management for helping professionals and their clientele. Physiological, psychological, social and economic factors producing stress. Coping, management and prevention procedures. Prerequisite: junior standing.
45:144(g). Socill Policies and lesues - 3 hrs.
Policy development and the consequences of policy for social welfare institutions. Frameworks for policy analysis. Planning, program design, and policy decisions for administration of social services. Prerequisites: 45:040; 45:042; or consent of instructor. Senior standing recommended.
45:163(g). Minority Croup Relations - 3 hrs .
A study of the interpersonal and social relations of minority groups within the larger American society, with special reference to Black-White relations. Prequisites: 98:058; junior standing.
45:164(f). 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. Prerequisites: junior standing; 84:023 or 84:028; 31:055 or 40:120.
45:171(g). Alcoholism - 3 hrs .
Social, legal, political, and ethical considerations surrounding the use and abuse of aicohol. Includes theories of causes and survey of social consequences; various interventive models tested in treating the alcoholic and evaluation of the effectiveness of the treatment approaches. Prerequisites: junior standing; 45:040 or consent of instructor.
45:172(g). Human Services Administration - $\mathbf{3}$ hrs.
Major concepts, principles, methods, and theories of administration of human services afencies, public and private. Application of systems theories to administration of these agencies. Prerequisites: junior standing; 45:040 or consent of instructor.
45:173(g). Sactal Services for the Ased - 3 hrs.
Social work practice and methods of delivering social service to the aged; critical analysis of current social programs, services, and legislation for the elderly person. Prerequisites: junior standing; 45:040 or consent of instructor.
45:174(g). Soctal Services in Health Care Settings - 3 hrs.
Includes psycho-social impacts of illnesses; roles and responsibilities of health care personnel. Prerequisites: junior standing; 45:040 or consent of instructor.

## 45:175(g). Child Weliare Policy and Services - 3 hrs.

Review of the development of family and children's services, focusing on current services and programs. Examination of policies and legislation emphasizing how such policies affect family functioning. Prerequisites: junior standing; 45:040; or consent of instructor.
45:176(d). Child Weliave Practice - 3 hrs.
A practice course designed to translate theories, treatment modalities, and human development concepts into useful skills and knowledge. Particular attention focused on those methods of service delivery which are unique to social work practice within child and family welfare. Prerequisites: junior standing: 45:091; 45:175; or consent of instructor.

## 45:184. Field Instruction - 11-15 hrs.

440 clock hours are required. Eleven credit hours may be eamed by: 1) $31 / 2$ days a week on a semester basis; or 2) full-time for eleven weeks during a semester; or 3) full-time for eleven weeks during the summer. Additional credit hours will require additional clock hours in field instruction. Prerequisites: 45:040; 45:042; 45:091; 45:192; or consent of instructor.
45:185. Socil Work Research - 3 hrs.
Application of research to social work practice including formulation of research questions and hypotheses, strategies of research design, measurement and methods of collecting data, questionnaire construction, data presentation and report writing. Prerequisites: junior standing; 98:080; 80:020 or equivalent.
45:189. Readings in Socil Work - $1-3$ hrs.
Prerequisite: 6 hours in social work and departmental permission. May be repeated only with permission of department.

## 45:192. Socill Work Practice II - $\mathbf{3}$ hrs.

Intermediate level, generic social work practice theory and skills; and taskcentered intervention. Prerequisite: 45:091 or equivalent or consent of instructor.

## 45:193(g). Therapeutic Communication - 3 hrs .

Human communication relevant to effective behavior change in the therapeutic relationship. Experiential leaming in the core therapist facilitative conditions. Identification of critical therapist - helping person - and client variables which affect communication. Prerequisites: junior standing; 45:192 or consent of instructor.
45:194. Seminar in Social Wort - 3 hrs.
Depth exploration of an advanced topic in social work practice or social welfare policy. Prerequisites: 45:192; junior standing; enrollment limited to students with a minimum cumulative grade point average of 3.2 and consent of instructor
45:195(g). Family and Group Practice - 3 hrs .
Family, family network, and group work intervention skills. Prerequisites: junior standing; 45:192 or consent of instructor
45:196(g). Social Advocacy and Community Organization - 3 hrs.
Advanced study of the three branches of community organization (locality development, social planning and social action) at the local, state and national levels with a special emphasis on social advocacy. Prerequisites: junior standing; 45:192 or consent of instructor.
45:285. Readings - $1-3 \mathrm{hrs}$.
Prerequisite: consent of instructor.
45:291. Advanced Direct Practice - 3 hrs .
Examination of advanced social work direct practice skills and techniques, and assessment of the social structural position of direct practice and the function and relevance of direct practice. Prerequisite: consent of instructor.

## 50 Communication and Theatre Arts

50:009; 50:109. Applied Broadcasting - 1 hr
Credit available for qualified students who work on campus radio station, KCRS, and/or on other authorized Radio/TV/Film projects. A maximum of 4 hours credit may be earned. Prerequisite: instructor's approval.
50:010; 50:110. Applied Theatre - 1 hr
Practical work on theatre productions. A maximum of 4 hours credit may be earned.
50:011; 50:111. Applied Forensics - 1 hr
A maximum of 4 hours credit may be earned.
50:015; 50:115. Applied Interpretation - 1 hs
Credit for approved work in interpretation (e.g., participation in Interpreters Theatre, performance in community, campus, or festival settings, or related activity). Maximum of 4 hours credit may be earned. Prerequisite: consent of instructor.
50:017; 50:117. Applied Public Relations - 1 hr
Credit for approved work in public relations (e.g., problems of campaign on campus or in the community). Maximum of 4 hrs . credit. Prerequisites: consent of instructor, and junior standing for 50:117.

## 50:018. Radio Production and Performance - 3 hrs.

Introductory course in performance and production with emphasis on radio. Prerequisites: 50:031 or 50:032 or 50:055 and 50:060 or junior standing. (May be taken concurrently with 50:060.)
50:020. Introduction to Theatre - 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.
50:021. Play Analysis for Production I - 3 hrs.
Analysis of dramatic forms and styles in preparation for production.
50:022. Play Analysis for Production II - 3 hrs.
Readings and analysis of plays (Greek to the present) in preparation for production. Prerequisite: 50:021.
50:024. Movement for the Actor - 3 hrs .
A beginning exploration of movement for the stage. Discussion, 3 periods; lab., 3 periods.
50:025. Directing I - 3 hrs .
Analysis of plays and fundamentals of directing. Prerequisite: 50:053.
50:026. Fundamentals of Speech - $\mathbf{3} \mathbf{h r s}$.
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.

50:027. Miseup - 2 hrs.
Basic techniques and materials of makeup for the stage. Discussion, 1 period; lab., 2 periods.
50:030. Public Spealing - 3 hrs.
Application of the principles of poychology, sociology, political science, and composition to situations confronting the public speaker. Prerequisite: 50:026 or equivalent.
50:031. Ond Interpretation - 3 hrs .
Introduction to the analysis and presentation of poetry, prose and drama.
50:032. Volice and Diction - 3 hrs.
Study and practice in voice and diction to develop superior vocal and articulatory skill.
50:034. Human Communication - 3 hrs.
Exploration of and experience with concepts and processes involved in interpersonal communication.
50:035. Problems in Interpersonal Communication - 1 hr
Experiences and insight into one-to-one human communication.
50:045. Stage Costume - 4 hrs .
Techniques of costume production for the theatre including the basic design and construction methods, and painting, dyeing, and developing patterns for period costumes. Requires work on crew for current department productions. Discussion, 3 periods; lab., 4 periods.
50:050. Acting 1 - 3 hrs .
Fundamentals of acting, stressing the basic skills and techniques of character analysis and interpretation, culminating with elementary scene work. Discussion, 3 periods; lab., 3 periods.
50:051. Theatre Gruphics I-3 hrs.
Fundamentals of graphics for theatre technology. Laboratory, 4 hours; lab. fee. 50:052. History of the Theatre I - 3 hrs .
Examination of plays, production methods, and historical trends in the theatre from the beginnings to the Restoration.
50:053. Technieal Theatre I-4 hrs.
Fundamentals of scenery construction, painting and handling, and lighting for the theatre. Requires work on technical crews for current department productions. Discussion, 3 periods; lab., 4 periods.
50:055. Performing Volce - 2 hrs.
Practical work in developing the voice for performance situations.
50:060. Fundamentals of Broadeasting - 3 hrs .
Basic technical and production components of broadcasting, organization of the industry, audience measurement, and the economic, social, and legal controls on broadcasting within a framework of the historical development of radio and television.
50:061. Television: Basic Production - 4 hrs .
Theory and practice in planning, organizing, and staging of television programming; and introduction to tejevision equipment. Prerequisites: 50:018 and 24:131.
50:062. Television Performance - $\mathbf{3}$ hrs.
Theory and practice in television performance techniques; use of scripted and non-scripted programming, the commercial, the public service announcerment, the newscast, and the interview. Prerequisites: 50:018 and 50:065.
50:064. Introduction to Broadcast Writing - 3 hrs.
Writing techniques and styles used in the television and radio public service announcements and commercials, the television radio documentary or instructional program, and the television play. Prerequisites: 50:060 and 24:131.
50:065. Broadcast Announcing - 3 hrs.
Problems and techniques in broadcast performance situations; radio performance would focus on ad-lib forms, scripted and semi-scripted announcing, news delivery and interiew techniques; television performance would focus on dramatic and comedic sequences, announcing, show hosting, and news reportingPrerequisites: 50:018; 50:060.

## 50:066. Broadcast News Whiting - 3 hrs .

Principles and practice of writing and editing news for the electronic media; development of effective broadcast style, conciseness, and acuracy; basic reporting and interviewing techniques, writing for time, rewriting, editing, and compiling the newscast. Prerequisites: 50:018; 66:040.

50:067. Writing for Television - 3 hrs.
practical and theoretical applications of non-journalistic writing techniques for television, including dramatic and comedic formats. Prerequisites: 50:061; 50:064.
50:068. Broadcust Sales, Promotion, and Development - 3 hrs.
Sales techniques in television and radio; analysis of sales organizations and operations; principles and problems of broadcast promotions; principles and practices of television and radio development, including promotion and fund raising. Prerequisite: 50:060 and sophomore standing.

## 50:075. Silent Film Filstory - 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.
50:077. Principles of Public Relations - 3 hrs.
Introduction of theories, process and techniques involved in researching, planning, and implementing programs designed to influence public opinion and human behavior.
50:080. Acting II - 3 hrs.
Application of the skills and techniques of Acting I to more advanced work in subtext and the internal process of acting using extensive scene work in realistic drama. Discussion, 3 periods; lab., 3 periods. Prerequisite: 50:050 or consent of instructor.
50:082. Histery of the Theatre $11-3 \mathrm{hrs}$.
Examination of plays, production methods, and historical trends in the theatre from the Restoration to 1900. Prerequisite: 50:052.
50:100. Rhetorical Theory - 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 - $2-3$ hrs.
The study of communication as it applies to the context of the classroom. Emphasis on the teacher as both source and receiver of messages. Applications in one-to-one, small group, and public speaking situations. May not be counted toward meeting requirements of a major or minor in Communication and Theatre Arts. Prerequisite: junior standing.
50:102(g). Non-Verbal Communication - 3 hrs .
Patterns of human expression apart from the spoken or written word. Prerequisite: junior standing.
50:103(s). Listening - 2 hrs.
Study of the theory and process of listening, methods of improving skills, and career applications. Prerequisite: junior standing.
50:104. Seripts for Public Communication and Social Change - 3 hrs.
Studies of the social action and public awareness functions of performed literature. Construction of documentary and advocacy scripts, study of literary communication in public relations and persuasion. Prerequisite: 50:031.
50:105(g). Freedom of Speech - 3 hrs .
Development of laws and social attitudes that have attempted to regulate communication in the United States; relation of free speech to national security, to regulation of the public forum, and to artistic expression; and analysis of doctrines and tests used by the Supreme Court in interpreting the limits to free expression. Prerequisite: junior standing.
50:106. Foll Narratives in Family Communication - 3 hrs.
Communicative functions and performance components of folk narratives in family conterts. Relationship of family narrative to communicative competence. Uses and analysis of dramatic techniques in everyday family interaction.
50:107(g). Costume History - $\mathbf{3}$ hrs.
Survey of fashion history concentrating on Europe and the United States. Discussion, 3 periods. Prerequisites: 50:045; junior standing or consent of instructor.
50:108. Interpretation in Health Communication - 3 hrs.
Uses of oral interpretation of literature in health care and therapeutic settings. Skills in selecting, adapting, and presenting scripts for specific audiences and purposes, including hospitals, elderly homes, and clinics. Prerequisite: 50:031.
50:109. Applied Brosdcasting - 1 hre (See 50:009.)
50:110. Applied Theatre - 1 hre (See 50:010.)
50:111. Applied Forensics - 1 he (See 50:011.)

50:112(g). Advanced Interpretation of Poetry - $\mathbf{3} \mathbf{h r s}$.
Analysis of the meaning and structure of poetry and application of the analysis in the oral communication of poems by selected writers. Prerequisites: 50:031; junior standing.

## 50:113(g). Advanced Interpretation of Prose - 3 hrs .

The meaning and structure of narrative prose and application of analysis in the oral communication of prose fiction. Prerequisites: 50:031; junior standing.
50:114(g). Readers Theatre - 3 hrs .
Introduction to basic forms of staging and adapting poetry, prose, and drama with emphasis on directing group presentations. Includes work in chamber theatre. Prerequisites: 50:031; junior standing.
50:115. Applied Interpretation - 1 hr. (See 50:015.)
50:116(g). Performance in Social Contexts: Theories and Research - 3 hrs . Advanced study of interpretation in public settings and mass communication. Theories, research, and projects in text-context interaction. Prerequisites: junior standing; 50:031 or consent of instructor.
50:117. Applied Public Relations - 1 hr (See 50:017.)
50:118. Ethnomethodolo for Oral History Interpretation - 3 hrs.
Methods of researching, analyzing, adapting, and presenting oral history materials to public audiences, use of readers theatre and solo oral interpretation styles in such settings as museums and organizations. Prerequisite: 50:031 or written consent of the instructor.
50:119(g). Selected Topics in Communication - 3 hrs .
Intensive work in specialized communication concepts, processes and approaches. No single emphasis may be repeated although the course may be repeated for a maximum of six credit hours. Prerequisites: junior standing and consent of instructor.
50:120. Broadcast Management - 3 hrs.
Broadcast management theories and problems at various administrative levels, ranging from top management's general institutional concerns to lower-level departmental concerns, such as programming, sales, engineering and office administration. Prerequisites: 50:061 and junior standing.
50:121. Television: Remote Production - 3 hrs .
Producing and directing single camera and multiple camera remote television productions; applied electronic field production techniques; emphasis on postproduction. Prerequisites: 50:066; 50:141.
50:122(g). Interpretation of Drama - 3 hrs.
Analysis of meaning, language, and structure of dramatic literature and application of analysis to oral performance of dramatic works by selected authors. Prerequisites: 50:031; junior standing or consent of instructor.

## 50:123(g). Interpretation of Folis Literature - 3 hrs .

Performing folk literature through group and individual interpretation; investigating narrative form, audience context, mythic motif, character development in the folk text. Field research and performance opportunities explored. Prerequisites: 50:031; junior standing or consent of instructor.
50:124(g). Interpretation of Literature through Electronic Media - 3 hrs . Communicating literary texts through media. Includes group and solo performance/production of literature on audio-cassette, videotape, television, and in media-assisted live presentations. Prerequisite: 50:031 and junior standing.

## $\mathbf{5 0 : 1 2 5 ( g )}$. Readings in Interpretation - $\mathbf{1 - 3}$ hrs.

Extensive individual study of special topic in interpretation theory, history, or research. Prerequisites: consent of instructor, junior standing.
50:126. Volce and Movement for the Actor - $\mathbf{3} \mathbf{h r s}$.
Intermediate work in voice and movement designed to free the natural responsiveness of the actor. Discussion, 3 periods; lab., 3 periods. Prerequisites: 50:024; 50:055.
50:128(g). Landuage and Communications - 3 hrs .
Language and communication theories, including sociolinguistics, general semantics, and language acquisition. Prerequisite: junior standing or consent of instructor.

## 50:129(g). Oral Interpretation of Children's Literature - $\mathbf{3} \mathbf{h r s}$.

Interpretation through story telling, oral reading, choral reading, narrative pantomime, and readers theatre; emphasis on personal skills and techniques appropriate for elementary classroom use. Prerequisite: junior standing. Corequisite: 21:044 or consent of instructor
50:130. Creathve 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. Speech Composition - 2 hrs.

Composition and presentation of manuscript speeches with special emphasis on style and attention to rhetorical examples. Prerequisite: 50:030.
50:132(g). Readers Theatre Production - 1 hr
Advanced problems in preparing scripts and directing readers theatre for public performance. Usually involves directing a readers theatre production. Prerequisites: $50: 114$; consent of instructor.
50:134(g). Theatre for Children - 3 hrs.
Specific problems of producing theatre for children, including readings in children's literature, child psychology, and plays. Practical experience in improvised and scripted performances. Prerequisite: junior standing.
50:135(g). Creative Drama Practicum - 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.
50:136. Paycholody of Speech Communication - 3 hrs.
Selected psychological views of speech communication. Topic emphasis based on professional interest of class.

## 50:137(g). Communication Theorles - 3 hrs .

Investigation of concepts offered by various theorists to explain human communication behavior Prerequisite: junior standing.
50:138(g). Organimational Communication - 3 hrs .
Study of communication channels and patterns which occur in large organizations where personnel are largely interdependent. Prerequisite: junior standing.
50:139. Principles of Discussion - 3 hrs.
Principles of small group speech communication with emphasis on the 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. Prerequisites: 50:030; junior standing.

50:141. Television: Producing and Directing - 4 hrs.
Advanced theory and practice of producing and directing scripted and nonscripted television programming; examination of the problems of the director and the aesthetics of television; emphasis on applied media aesthetics. Prequisite: 50:061.
50:142. Radio Production II - $\mathbf{3}$ hm.
Advanced audio production techniques characteristic of radio and sound studios; production techniques for program matter, including dramatic and music genre; application of aural aesthetics to audio projects. Prerequisite: 50:018.

## 50:143(g). Advanced Discussion - 3 hrs .

Explores problems involved in small group discussion through examination of reported experiments and literature in the field. Prerequisites: $50: 139$; junior standing or consent of instructor.
50:144. Debate - 3 hms .
Examination in detail of theories of argumentation and debate, emphasizing evidence and reasoning. Prerequisite: 50:026 or equivalent.
50:145(s). Argumentation: Cases and Studies - 3 hrs.
Analysis of selected cases and theories of argumentation. Emphasis on ethical, logical and evidential aspects of argumentative processes. Prerequisites: Communications Major, junior standing and/or 50:144.

## 50:146(g). Theatre for Children Tour - 3 hrs .

Specific problems of creating and performing a touring show for child audiences examined through practicum experience. Includes research, planning, rehearsal and performance, and evaluation. Prerequisite: junior standing or consent of instructor.
50:147(d). History of the Theatre III - 3 hrs .
Examination of plays, production methods, and historical trends in the theatre from 1900 to the present. Prerequisites: 50:052 and 50:082.
50:148(g). Theatre Aesthetics - 3 hrs.
Theories of the theatre arts. Prerequisites: 50:021; senior standing.
$50: 149(\mathrm{~g})$. Acting Characterization - 3 hms .
Development of methods for creating a distinct stage personality for variety of characters. Discussion, 3 periods; lab., 3 periods. Prerequisites: 50:021; 50:024; 50:055; 50:080; junior standing and consent of instructor.

50:150. Electroaic News Getherine - 3 hrs.
Principles and practice of radio-television news gathering; includes writing performing field acquisition of information, and analysis of the news proce practice in editing for news presentation. Prerequisites: 50:061; 50:066.
50:151. Theatre Dealta I - 3 hrs.
Design theory and techniques as applied to the theatre. Analysis of selected scri and development of designs in scenery and/or costuming. May be repeated maximum of 6 hours. Prerequisites: 50:021; 50:045; 50:051.
50:152(g). Dtrecting II - 3 hrs .
Advanced problems in directing. Each student will stage a one-act play foe presentation. Discussion, 3 periods; lab., 3 periods. Prerequisites: 50:021; 50:025; junior standing or consent of instructor.
50:153. Broadeast Criticism - 3 hrs .
Designed to develop an increased sensitivity to broadcast programming as an 2 form and as a vehicle for the dissemination of information. Prerequisites: 50:060; junior standing or consent of instructor.
50:154. National Systems of Broedcasting - 3 hrs.
Comparative analysis of the major broadcasting systems of the world; examin tion of the governmental and economic structures within which the systems operate, the administrative structures, revenue sources, historical development and programming types. Prerequisites: 50:060 and junior standing.

## $50: 155$. History of Brosdcasting - $\mathbf{3} \mathbf{h r s}$.

Development of the structure, economics, and programming of electronic med in the United States; examination of significant persons and events contributin) to the technological, economic, and social development of the electronic media. Prerequisites: 50:060 and junior standing.
50:156. Theatre lighting Technoloty - 2 hrs.
Lighting instrumentation, control devices, distribution systems, lenstrains, and mechanics. Discussion, 2 periods; lab., 2 periods. Prerequisites: 50:021; 50:051; 50:053.
50:157(g). Stage Costume II- 3 hrs.
Pattern dratting techniques for theatrical costumes, and special construction problems. Discussion: 3 periods. Prerequisites: 50:045 and junior standing.
50:158. Projects in Broadcasting - 1-6 hours.
Practical application of various broadcasting techniques; production of radio or other audio projects for distribution; videotaping television programs for distyi bution or visual projects in other media; special projects in journalistic or nom journalistic script writing. May be repeated for a maximum of 6 semester hours ${ }^{\circ}$ A. credit. Prerequisite: consent of instructor.
50:160(g). Piswititing - 3 hrs.
Prerequisites: 50:022; consent of instructor; junior standing.
50:163. Business and Professionsi Oral Communication - 3 hrs.
Communication concepts and techniques for reporting and persuasive presentstions in decision making situations. Prerequisite: 50:026.
50:164(g). Dtmensions of Interpersonal Communication - 3 lrs .
In-depth study of the theories of interpersonal communication including psyche, logical, sociological and philosophical analysis. Prerequisites: 50:034 and junic. standing.
50:165(g). Communication Research Methods - 3 hrs.
Emphasis in one of four procedures: 1) survey techniques, 2) experiment techniques, 3) historical/critical techniques, or 4) ethnographicfield methotan Credit may be eamed by taking different sections, but not by repeating the sanal. section. Prerequisite: junior standing.
50:168(g). Advanced Scene Destin and Technoloty - 3 hrs .
Advanced work to meet needs of the multi-set show, designing for non-tradition forms, advanced problems in script interpretation, and rendering techniquas Technical solutions and problem solving emphasizing new technology. Discussion, 1 hr ; lab., 2 hrs. Prerequisite: junior standing and 50:167.
50:167(s). Theatre Design II - 3 hrs.
Advanced problems and projects in design in one area: scenery, costume, or lighting. Discussion, 2 periods; lab., 2 periods. May be repeated in different areas for a total of 9 hours. Prerequisites: 50:151; 50:156.
50:168(g). Theatre Management - 3 hrs.
An intensive study of business practices in the academic, community, and commercial theatre. Field trips and guest lectures to be included. Prerequisite: junior standing.

50:170. Broadcast Programming - 3 hrs .
Program scheduling and arrangement in television; organization of program elements in radio; informational programming responsibilities for both media; development of a philosophy concerning effective programming strategies. Prerequisite: 50:060.
50:171(1). Brosdeast Seript Writing - 3 hrs.
Treatment of non-journalistic applications including creative writing of radio or television dramas, documentary or instructional programs; or journalistic applications, including advanced reporting techniques, feature and editorial writing. Student may take both non-journalistic and journalistic sections which will be offered in alternate semesters. Prerequisites: non-journalistic-50:067; journalistic - $50: 150$; junior standing.

## $50: 172$. Broadcast Documentary - 3 hrs.

Form and content of broadcast documentaries through analysis of historical and contemporary examples. Prerequisites: 50:060 and junior standing or consent of instructor.
50:173. Sportscisting - 2 hrs .
Preparation, production, programming, and performance of sporting events; performance includes play-by-play and color for television and radio; students must be available to attend UNI and local high school sports events. Section 1 deals with autumn sports; section 2 deals with spring sports. Students may take sections 1 and 2, but not repeat the same section. Prerequisites: 50:065 and junior standing.

## 50:174. Broadcast Law and Poilicy - 3 hrs.

Character of broadcasting regulation and policies controlling entry into broadcasting FCC objectives and policies, policies pertaining to cable television and new technologies, press freedom and press license, fairness issues, children's television, and public broadcasting. Prerequisites: 50:060; junior standing.
50:175. Current Issues in Browicarthe - 3 hrs.
Specialized areas of broadcasting; topics to be announced in semester Schedule of Classes. May be repeated for maximum of 6 hours credit. Prerequisites: junior standing and consent of instructor.
50:177(g). Public Relations: Cases and Studies - 3 hrs.
Analysis of selected cases and their ethical implications; design and simulation of particular public relations campaigns conducted by students enrolled. Prerequisite: senior standing or consent of instructor.
50:178(1). Publicity Methods - 3 hrs.
Analysis and production of public relations tools; techniques to gain reaction and support from specialized groups. Includes planning and preparation of public relations communications materials and use of controlled (public) media to reach target audiences. Prerequisites: 50:077 and junior standing.
50:180(g). Scene Painting - 3 hrs.
Practicum in traditional scenic art, covering base coating, scumbling, stenciling, texturing, and the use of bronze powder, vamish, aniline, dyes, and a variety of other techniques and materials. Lab., 8 periods; lab. fee. Prerequisite: 50:051 and junior standing or consent of instructor.
50:181(g). Acting Styles - 3 hrs .
Application of techniques leamed in Acting I and II including theoretical study of various styles of acting as well as extensive scene work. Discussion, 3 periods; lab., 3 periods. Prerequisites: junior standing; 50:021; 50:024; 50:055; 50:080; and consent of instructor.
50:182. Stuge Weapons and Fight Choreography - 3 hrs.
Basic skills of modem and historic styles of fencing, swordplay, and other modes of fighting, and application of these skills to the planning and safe erecution of an effective and artistic stage fight.
50:183(9). Interviewing - 2 hrs .
The interviewer and interviewee functions in business and professional settings; excludes journalistic interviews. Prerequisite: junior standing.
50:184(g). Conference Techniques - 2 lus.
Conference processes in business and professional settings with emphasis on problem solving and presentational speaking. Prerequisite: junior standing.
50:185(c). Negotiation Processes and Techniques - 2 hrs.
Examination of negotiation as it affects individuals in the life experience, and techniques for development of bargaining abilities. Prerequisite: junior standing.
50:187. Contemporary Public Address - 3 hrs.
Critical study of subject with emphasis on important American statesmen after World War II.

50:188. Parliamentary Procedure - 2 hrs .
Study of the rules of order which govern the proceedings of organizations in a democratic society:
50:189(g). Readings in Theatre - 3 hrs.
Intensive investigation of a theatre style, form, period, or concept. May be repeated for a maximum of 6 hours. Prerequisites: instructor approval; junior standing.
50:180(3). Thentre Graphics II - 3 hrs.
Introduction to design techniques and media including chiaroscuro, perspective, color, and figure drawing. Lab., 4 hours. Prerequisites: 50:045; 50:051; 50:053; 50:151.
50:191(g). Technical Theatre II - 3 hrs.
Advanced studies in theatre technolody: problem solving - complex structures, hidden construction, scene shifting and rigging. Discussion, 3 periods. Prerequisites: 50:051; 50:053; 50:151; or consent of instructor.
50:192. Seminar in Student Teaching - 1 hr
Discussion of problems and advantages encountered in the student teaching experience. Evaluation of current speech programs. To follow student teaching.
$50: 183(\mathrm{~g})$. Teaching of Speech - 3 hrs .
Credit also as a course in education for a student whose major is speech. Prerequisite: 12 hours of speech; strongly recommended that this course precede student teaching; junior standing.

## 50:194(1). Method of Directing Forensics - 2 hrs.

Credit also as a course in education for a student whose major is speech. Prerequisite: junior standing.

## 50:195(3). Theatre Production - 1-4 hrs.

Assumption of a major production responsibility under supervision of faculty. Lab., 2 hrs. May be repeated in various production areas for a maximum of four credit hours. Prerequisites: consent of instructor, junior standing.

## 50:196(1). Methods of Tuching Theatre to Hith 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.
50:197(8). Internshtp - 1.8 hrs.
Intensive work in specialized area at an off-campus work facility. For advanced students in radio-TV, communications, public relations, and theatre. Prerequisite: consent of adviser and department head.

## 50:198. Independent Study

50:205. Interpersonal Communication - 3 hrs.
Synthesis of paychological, sociological, philosophical analysis of person-toperson communication.
50:212. Speech Criticism - 3 hrs.
Comparison of theories of criticism and their application to selected speeches.
$50: 225$. Bibliography and Methods of Research - 3 hrs .
$50: 230$. Paycholoy of Speech - 3 hrs .
The analysis of speech communication as a behavior phenomenon. Topic emphasis to be used on professional interest of class. Prerequisite: consent of instructor.
50:240. Classical Rhetoric - 3 hrs .
Ancient rhetorical theory; emphasis on works of Aristotle, Cicero, and Quintilian.
50:241. Brtish and American Rhetoric - 3 hrs.
Rhetorical trends from 17th century to the present; examination of works of major metoricians.
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.
50:273. Projects in Speech - $1-3 \mathrm{hrs}$.
May be repeated for a total of 3 hours credit. Approval of departmental committee must be obtained before registration.

50:289. Seminar to Teaching Speech - 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.
50:289. Seminar in Public Address - 3 hrs.
Class interest determines whether the emphasis will be upon (1) persuasion, (2) rhetoric, or (3) debate and discussion. May be repeated for a maximum of 6 hours.
50:289. Seminar in Interpretation - 3 hrs.
Section 1. Interpretation of literary styles; critical and historical perspectives. Section 2. Interpretation theories and research with application to teaching. Section 3. Advanced study of interpretation performance, directing, and/or coaching. May be repeated for a maximum of 9 hours; no section may be repeated.
50:289. Seminar in European Thentre - 3 hrs.
Specialized study in some aspects of European theatre history and dramatic literature. Prerequisite: 50:142.
50:289. Seminar in American Thentre - 3 hrs.
Specialized study in some aspects of American theatre history and dramatic literature. Prerequisite: consent of instructor.
50:289. Seminar in Stage Interpretation of Selected Plays - 3 hrs .
Specialized study of prompt-scripts and stage histories of selected plays. Prerequisite: consent of instructor.
50:299. Research.

## 51 Communicative Disorders

51:010. Introduction to Patholog of Speech-Language and Hearing - 3 hrs . Corequisite: 51:150 (Section 1).

## 51:101(g). The Communicatively Handicapped Student in the Classroom

 - 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 students majoring in Speech Pathology. Prerequisite: junior standing or consent of instructor.
51:105. Anstomy and Physioloty of Speech Mechanism - 3 hrs.
Introduction to functional anatomy, physiology, and neurology of speech mechanism. Prerequisites: 88:008; 51:111.
51:106(g). Language Acquistion in Children - 3 hrs .
Study of the acquisition of phonological, semantic, syntactic and pragmatic systems as these interface with brain maturation and motor, cognitive and social development. Biological and socialinteractional factors examined from variety of perspectives, stressing "applied" orientation. Prerequisite: 51:010 or consent of instructor, junior standing or consent of instructor.

## 51:111. Phonetics in Speech Patholody - 4 hrs.

Study of International Phonetic Alphabet with emphasis on symbols for clinical transcription. Introduction to physiological and acoustic aspects of speech sound production.
51:125. Disorders of Articulation - 3 hrs.
Normal and disordered phonological/articulatory systems; exploration of assessment and intervention principles and practices. Prerequisite: 51:111.
51:127(g). Disorders of Language - 3 hrs .
Assessment and intervention principles and techniques for preschool and schoolaged, language-disordered children. Examination of medical psychological and linguistic orientations. Prerequisite: 51:106 or consent of instructor; junior standing or consent of instructor.
51:130(g). Cleft Palate - 2 hrs.
Etiology, nature, habilitation and associated problems resulting from facial clefts and other structural facial deviations. Evaluative and therapeutic principles and practices. Includes laboratory. Prerequisites: $51: 105 ; 51: 125$; or consent of instructor.
51:135(0). Introduction to Disorders of Woice and Fluency - 4 hrs .
Normal and abnormal voice and rhythm production. Etiology, diagnosis and management of voice and fluency disorders. To precede student teaching; open only to speech/language pathology majors. Prerequisites: 51:105; 88:008; or instructor's consent.

51:150. Clinical Processes I, II, III -1 hr
Introduction to role of speech/language pathologist as clinician; emphasis on analysis and observation of remediation, culminating in a semester of participar. tion as an 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. 1, Analysis; Sec. II, Observation; Sec. III, Participation. For Section I, corequisite: 51:010 or consent of instructor:
51:155. Clinical Practice - 1-2 hours.
Clinical experience in evaluation and remediation of language, articulation, and voice disorders as well as experience in the testing of hearing. Prerequisite: $51: 125$ or consent of instructor. Must be repeated for a total of 4 hours of credit. Must be taken as credit/no credit.
51:156(g). Clinical Examination - 3 hrs.
Theoretical and practical aspects of the evaluation process. Prerequisite: 51:111 and consent of instructor.
51:157(g). Introduction to Evaluation and Dingnosis - 1 hr
Introductory clinical experience in interviewing techniques; application of formal and informal evaluation instruments and techniques; formulation of diagnoses and prognoses; report writing, includes lab. experience. Prerequisites: 51:155; 51:156; or consent of instructor.
51:165(g). Introduction to Audioloty - 3 hrs.
Basic hearing science, types of hearing loss, and audiometric measurement. Prerequisite: 51:105.
51:170(§). Manual Communication - 3 hrs.
Basic principles and instruction in the use of manual communication; survey of various manually coded English systems and American Sign Language.
51:173(g). Advanced Manual Communication - 2 hrs.
Designed for students with basic communication skills in both signing and fingerspelling. Emphasis will be on conversational signing in everyday communication situations. Prerequisite: 51:170 or instructor's approval.
51:180(g). Current Problems in Speech Patholoy and Audioloty - $1-2$ hrs. Major issues confronting clinicians, researchers, and training institutions. Seminar discussion topics to be determined by participants. Prerequisite: approval of instructor.
51:181(g). Speech and Language Problems of Special Populations - 2 hrs. Examination of speech and language problems of special populations defined by clinical categories and found in public schools. Includes patterns of language and communication, learning styles, assessment accommodations, and intervention strategies. Prerequisite: $51: 155$ or consent of instructor.
51:195(g). Orgentration and Management of Clinical Programs - 2 hrs.
The planning and implementation of speech-language pathology and audiology programs in various clinical settings. Prerequisites: 51:125 or instructor's approval; junior standing or consent of instructor.
51:196(g). Research Methods in Speech Patholog and Audiolog - 3 hrs. Introduction to methodology, various designs, and report preparation for research. Requires participation in research project. Prerequisite: 25:180.
51:230. Language Trining Strategies $-\mathbf{3}$ hrs.
Review of current literature materials for language-disordered children. Requires active participation for demonstrations and presentations of articles and materials. Prerequisites: 51:106; $51: 127$; consent of instructor.
51:240. Aphasla - 3 hrs .
Diagnosis and remediation of aphasia in adults.
51:241. Motor Speech Disonders - $\mathbf{3}$ hrs.
Neurophysiological bases, differential diagnosis, and clinical management of motor speech disorders in children and adults. Prerequisite: $51: 240$ or consent of instructor.
51:246. Fluency Disorders - 2 hrs.
Etiology, nature, diagnosis, and management for disorders of fluency in speech production. Prerequisite: 51:106 or consent of instructor.
51:249. Speech Science - 3 hrs.
Speech acoustics: lecture and laboratory assignments on the structure of speech waves, theories of speech production, speech intelligibility, speech perception, psychoacoustics, and speech synthesis. Prerequisites: $51: 105 ; 51: 111 ; 88: 008$ and consent of instructor.

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. Audiolo Precticum - $1-2 \mathrm{hrs}$.
Supervised clinical experience in auditory evaluation and training of the hearing impaired. May be repeated for a total of 6 hours credit. Prerequisite: Audiolog's major, or consent of instructor.
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. Anstomy 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 - 3 hrs .
Application of pure-tone and speech audiometry to complex auditory problems and differential diagnostic questions. Prerequisite: $51: 265$.
51:272. Hearing Ads -3 hrs .
Physical characteristics and clinical aspects of auditory amplifiers for the hearing impaired. Prerequiste: 51:265.

## 51:273. Pedintric Audioloty - 2 hr .

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.
Study of the audiologist's role in managing hearing conservation programs in the community, industry, and public school.
51:275. Habilitative/Rehabilitative Audioloy - 3 hrs.
Principles and procedures for assessment and rehabilitation of communication deficits of hearing-impaired persons - emphasizing amplification systems, auditory training, speech-reading, and total communication for the hard-ofhearing and deaf.
51:285. Individual Rendings - 1-2 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.
Seminars in special topics to be announced in the Schedule of Classes. Prerequisite for each scheduled topic will be instructor's approval. May be taken for a maximum of 6 hours as long as no topic is repeated.
51:289. Seminar in Articulation Disorders - 2 hrs.
Phonological/articulatory disorders; includes issues in the assessment, management, and factors related to such disorders. Prerequisite: $51: 125$ or consent of instructor.
51:289. 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 requirements for that area. May be taken for a maximum of 6 hours as long as no topic is repeated.
51:290. Advanced Diagnostics - 2 hrs.
Advanced techniques in diagnostics, incorporating a multi-disciplinary approach. Opportunities provided to observe and administer appropriate evaluative materials. Prerequisite: student must be in terminal semester of graduate program.
51:291. Advanced Disorders of Voice - 2 hrs.
Anatomy and physiology of the laryngeal mechanism; etiology and management of voice disorders, including those of the laryngectomee. Prerequisite: $51: 135$ or consent of instructor.
51:296. Cllnical Supervision in Speech Patholoty - 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.
51:299. Research - 1-6 hrs.

## 52 Music

52:020. Exploring Music - 3 hrs .
Provides historical background of and emphasizes representative compositions by major composers.

## 52:050. What is Jazz? - 3 hrs .

Introduction to the major styles and major musicians in the field of jazz, emphasizing live performances, recorded performances and historical background. This course will not count for music major or music minor credit.
52:102(g). Music in Childhood Education - 2 hrs.
Methods and principles of music in the elementary classroom. Rudiments, aural training, selection and study of materials for listening, ryythmic activities and singing. This course will not count for music major or minor credit. Prerequisite: junior standing.

## 52:110. Arts Manatement in Music - 3 hrs.

Principles and techniques of music managernent in the retail and professional performance sectors. Field trips and guest lecturers will supplement classroom experiences.
52:221. Musle Rescarch and Bothography - 2 hrs.
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.
52:299. Research.

## 53 Music Organizations and Ensembles

Orfantration and Ensemble Credt: One (1) semester hour of credit may be earned by a student who completes a semester in an approved ensemble. Ensembles may be repeated for credit. A maximum of two (2) credits for organization and ensemble participation may be eamed in any one semester. A maximum of two (2) credits in Jazz Band may be counted by music majors toward departmental ensemble requirement. All music ensembles are open to any university student by audition.

Ensemble numbers are assigned as follows, based on the student's classification:
53:010, 53:110(g). Chorus
(Concert Chorale, UNI Singers, Varsity Men's Glee Club, Women's Chorus)
53:012, 53:112(g). Ensemble
$53: 015,53: 115(\mathrm{~d})$. Band
(Marching Band, Symphonic Band, Basketball Pep Band, Wind Symphony)
53:016, 53:116(8). Jaxz Band
53:017, 53:117(g). Orchestr

## 54 Music, Applied

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 semester hours

Concentration (all freshmen during Core requirements and all upperclass and graduate music majors except Performance majors) - 2 semester hours
Secondary - 1 semester hour
Two half-hour lessons each week per semester, are required for both major and concentration applied students. Practice and performance demands for the major 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 semester hours of credit each semester. Students approved for the Performance major under the Bachelor of Music Degree will register for four (4) semester hours of credit in applied music beginning with the sophomore year. Students approved for the Performance major program under
the Master of Music Degree will register for four (4) semester hours of credit in Applied Music during the fall or spring semesters in residence. Adjustments in credit hour registration for Applied Music will be made during the summer session.

The appropriate applied area faculty will determine the level of the student's qualifications ( $54: 0 x, 54: 12 x$, or $54: 2 x$ ) by audition and/or previous work on an instrument or in voice. A 200 number can be assigned only to graduate students on Performance and Composition programs who have satisfactorily completed an audition and are preparing for a graduate major in voice or instrument, or composition. All other graduate applied students will receive $54: 1 \times x(\mathrm{~g})$ credit.
$54: N \mathrm{ka}$. Applied Music for the Non-Music Major
Private applied music instruction for students not pursuing a degree program in music. Emphasis on basic skills oriented toward immediate performance needs. Credit normally will not be applied toward music major or minor requirements.
54:030, 54:130(g), 54:230. Fhute
54:031, 54:131(g), 54:231. Oboe
54:032, 54:132(d), 54:232. Clarinet
54:033, 54:133(g), 54:233. Bastoon
54:034, 54:134(d), 54:234. Saxophone
54:035, 54:135(g), 54:235. French Horn
54:036, 54:136(d), 54:236. Cornet-Trumpet
54:037, 54:137(d), 54:237. Trombone
54:038, 54:138(g), 54:238. Euphontum
54:039, 54:139(8), 54:239. Tuba
54:040, 54:140(1), 54:240. Percussion
54:041, 54:141(g), 54:241. Volin
54:042, 54:142(g), 54:242. Mola
54:043, 54:143(g), 54:243. Cello
54:044, 54:144(s),54:244. String Bass
54:045, 54:145(@), 54:245. Harp
54:046, 54:146(g), 54:246. Plano
54:047, 54:147(f), 54:247. Group Piano
54:048, 54:148(g), 54:248. Ontan
54:049, 54:149(g), 54:249. Volce
54:050, 54:150(g), 54:250. Harpsichord
54:051, 54:151(1), 54:251. Group Voice
54:052; 54:152(6), 54:252. Gultar
54:054, 54:154(g), 54:254. Composition
(Prerequisite: 58:022 and consent of instructor)
54:129. Instrumental Proficiency - no credt.
Voice or instrumental proficiency required of all music education keyboard majors.
54:P46. Plano Proficiency - no credit.
Required of all undergraduate majors.
54:V49. Voice Proficiency - no credt.
Voice or instrumental proficiency required of all music education keyboard majors.
54:189. Senior Rectal - no credt.
Required of all seniors except those on Bachelor of Fine Arts program. Prerequisite: 3 hours at 100 level in major applied area.

## 56 Music Techniques

## 56:015. Basic Recondins Techniques - 2 hrs .

Tape recording: theory and practical application. Includes live recording, mixing, editing, overdubbing, sound reinforcement, and tape recorder maintenance. Prerequisite: consent of instructor.
56:020. Basic Conducting - $\mathbf{2}$ hrs.
Baton technique, score reading, rehearsal technique, and practice in conducting. Required of all music majors on teaching degree. Prerequisite: 58:013.

56:021. Instrumental Conducting and Materials - 3 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: 56:020; 58:013,
56:022. Choral Conducting and Materials - 3 hrs.
Training in choral conducting, rehearsal techniques, performance practices, an choral materials. Required on the teaching degree for voice majors and tho ${ }^{2}$ keyboard majors who do not take $56: 021$. Prerequisites: $56: 020 ; 58: 013$.
56:030. Dietion for Singers 1-1 hr
Study and application of Italian and English speech sounds for use by singere, coach-accompanists, and teachers of choral music.

## 56:031. Diction for Stagers II - 1 hr .

Study and application of German and French speech sounds for use by singers, coach-accompanists, and teachers of choral music. Prerequisite: 56:030.
56:040. Organ Techniques and Church Service Plyyng - 1 hr
Selected problems in church service playing and aspects of organ design. May be repeated for credit.
56:050, 56:150(g). Music Theatre - $1-2$ hrs.
Techniques of the American music stage. Includes work in movement, style and history. Preparation of a major music theatre production and/or scenes from musicals or operettas. May be repeated for credit. (56:050 for freshmen' sophomores; $56: 150(\mathrm{~g})$ for juniors/seniors.)
56:051, 56:151(g). Open Theatre - 1-2 hrs.
Techniques of opera performance. Emphasis on area, recitative, and ensemble performance; preparation of roles. Study and application of coaching, interpretw tion, acting, and stage production techniques. Preparation of major operatic production and/or scenes. May be repeated for credit. (56:051 for freshmen sophomores; $56: 151$ (g) for juniorsiseniors.)
56:052, 56:152(g). Instrumental Jazz Improvisation - 1 hr
Elements of improvisation intended as an aid to the experienced instrumentalin and as a tool for the potential instructor. Areas available: Basic, Intermediztes, Advanced. Each area may be taken once for credit. Prerequisite: consent of instructor ( $56: 052$ for freshmen/sophomores; 56:152(g) for juniors/seniors.)
56:110. Guitar in the Classroom - 2 hrs.
For potential teachers of elementary and junior high school music; fundament of guitar and basic materials necessary for the effective use of the guitar in th classroom. No previous guitar experience required; basic music backgroun desirable.

## 50:115(g). Elements of Electronic Music - 2 hrs.

Operation of sound synthesizer and tape recorders, editing of audio tape, and historical background related to the composition of electronic music. Soms music background desirable. Prerequisite: junior standing; $56: 015$ or consent of instructor.
56:121(s). Advanced Instrumental Conducting $1-2 \mathrm{hrs}$.
Techniques of conducting band and orchestral works; score study and analysis ol major works representing all style periods. Classwork includes conducting maja, works in rehearsal. Prerequisite: $56: 021$. May be repeated for credit.
56:122(d). Advanced Choral Conducting I - 2 hrs.
Art and techniques of conducting choral and choral-orchestral literature as related to score study of major works from all major style periods.Rehearel experience includes conducting major works, conducting and coaching a recitatives, score reading, problems of baton clarity, and rehearsal pacings Prerequisite: 56:022. May be repeated for credit.
56:135(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. Prerequisite: junior standing or consent of instructor
56:150(s). Music Theatre - 1-2 hrs. (See 56:050.)
56:151(g). Open Theatre - 1-2 hrs. (See 56:051.)
56:152(g). Instrumental Jazz Improvisation - 1 hr (See 56:052.)
56:155. Jaza Ensemble Techniques - 1 hr
Practical course for future jazz-ensemble director; includes phrasing and articulation, rehearsal techniques, sound reinforcement, and chord terminolone Student will observe and participate in conducting one of the UNI jazz ensembles. Will not count on music education programs.

56:221. Advanced Instrumental Conducting II - 3 hrs.
Continuation of $56: 121$. Emphasis on laboratory conducting experiences. Preparation for conducting recital. For graduate instrumental conducting majors only. May be repeated for credit. Prerequisite: 56:121 or equivalent, and consent of instructor.
56:222. Advanced Choral Conducting II - 3 hrs.
Continuation of $56: 122$. Emphasis on laboratory conducting experiences, advanced choral conducting techniques, analysis of representative works, and score reading. Preparation for conducting recital. For graduate choral conducting majors only. May be repeated for credit. Prerequisite: 56:122 or equivalent, and consent of instructor.

## 57 Music Education and Methods

57:010. Instrumental Techniques $-1 \mathbf{h r}$
Areas: flute, clarinet and saxophone, double reeds, high brass, low brass, high strings, low strings, percussion, harp. One hour credit for each area. Areas may not be repeated for additional credit.
57:050. Introduction to Music Education - 1 hr
The role of music in the total public school curriculum. Principles of music leaming. Required of all music education majors.
57:130(g). Vocal Pedagody - 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.
57:138(8). Brass Pedagoly - 2 hrs .
Advanced techniques of solving physiological and poychological problems of brass performance. Emphasis on motivation, attitude, stage fright, as well as more traditional topics (i.e., respiration, articulation, embouchure, endurance, and intonation). Prerequisite: junior standing or consent of instructor.
57:141. Elementary/General Music Methods - 3 hrs.
Objectives and materials for and methods of teaching general music in public schools. Emphasis on contemporary approaches: Onff, Kodaly, Dalcroze, Integrated Arts, and other methodologies. Prerequisite: 57:050
57:143. Musle for the Pre-School Child - 2 hrs.
Study of musical perceptions and needs of 3-to-5-year-old children as they respond to music experiences (singing, playing instruments, composing) within various environments (on playground, in a music comer, in a soundbox).
57:144. Introduction to Kodaly and Offi - 2 hrs.
Introduction to teaching techniques, learning environments, and curriculum as developed from the philosophies of Zoltan Kodaly and Carl Orff.
57:145(g). Developments and Trends in Music Education - 2 hrs.
Evolving issues important to the music educator. May be repeated for credit. Prerequisite: 57:050; junior standing or consent of instructor.

## 57:148(g). Piano Methods - 2 hrs.

Procedures and techniques of piano instruction, especially for the beginning and intermediate student. These include the study and techniques of piano playing, the literature of the instrument, and the styles of the various periods. Prerequisite: junior standing.
57:155. Instrumental Methods and Materials - 3 hrs.
Teaching of instrumental music in the elementary and secondary schools. Organization and administration of program. Emphasis on band, orchestra, marching band, and jazz ensemble rehearsal techniques and materials.
57:165. Choral Methods and Materials - 3 hrs.
Organization and development of public school choral organizations. Emphasis on rehearsal techniques, vocal production and blend, and materials suitable for choral ensembles.
57:170(s). The Suzuli Approach to Teaching Stringed Instruments - 2 hrs. The philosophy, teaching methods and materials of the violinist Shinichi Suzuki. May be repeated for credit. Prerequisite: junior standing.
57:190(g). Music in Specill Education 1-2 hrs.
Development of music teaching techniques appropriate to the needs of special children; information on the implications and requirements of mainstreaming law for music education; assessment of music skills, development of Individualized Educational Programs. Prerequisites: 22:150; 57:141; or consent of instructor.

57:191(g). Mualc in Spechal Education II - 2 hrs.
Music materials for special education, assessment, adaptation and development of materials, adaptive equipment. Prerequisite: 57:190 or consent of instructor.
57:195(g). Precticum, Music in Special Education - 2 hrs.
Supervised instruction in the classroom; music skills for special children. Prerequisites: 22:150; 20:151; 57:190.
57:197(g). Instrumental Upleep and Repatr - 2 hrs.
A laboratory course in which practical projects are undertaken. Offered for instrumental majors. To accompany student teaching.

## 57:220. Paycholoty 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.
57:250. Projects in Music - $1-3 \mathrm{hrs}$.
57:255. Band Administration - 3 hrs.
Philosophy, management and public relations techniques and procedures associated with the administration of the elementary and secondary instrumental music programs. Prerequisite: 57:155 or consent of instructor.
57:289. Seminar in General Music - 2 hus.
The study of practical situations in the general music program with special emphasis on grades one through nine.
57:289. Seminar in Music Education - 3 hrs .

## 58 Music Theory

58:010. Introduction to Music Theory - 2 hrs.
Basic skills and vocabulary. Designed for non-music majors with limited background in music fundamentals or as preparation for music major theory courses. Emphasis on notation, key/time signatures, thythm, and aural training.
58:011. Theory I - 3 hrs.
Fundamentals of basic musicianship; scales, intervals, chord forms; analysis and writing involving diatonic harmony. Creative use of materials. Corequisite: 58:015.
58:012. Theory II- 3 hrs.
Continuation of $58: 011$. Corequisite: 58:016.
58:013. Theory III - 3 hrs.
Materials of musicianship; emphasis on the so-called period of "common practice." Corequisite: 58:017.
58:014. Thoory IV - 3 hrs.
Continuation of $58: 013$ with emphasis on Late Romantic and Contemporary eras. Corequisite: 58:018.
58:015. Aural Training I-1 hr
58:016. Aurnl Trining II - 1 hr .
58:017. Aurl Trining III - 1 hr
58:018. Aural Trining IV - 1 hr
58:022. Composition Class - 3 hrs.
Creative work in the primary forms. Prerequisite: 58:012 or consent of instructor. (For applied composition, see 54:054.)
58:110. Annlysis of Music Styles - $\mathbf{3}$ hrs.
Study of forms and procedures prevalent in the works of major composers from the 16th century to the present. Prerequisite: 58:013.
58:120(g). Sxxteenth Century Counterpoint - 3 hrs.
The vocal polyphonic style of the 16th century. Analysis. Creative work in vocal forms; motet, madrigal, mass. Prerequisite: 58:013; junior standing.
58:121(g). Eighteenth Century Counterpoint - 3 hrs .
Contrapuntal technique and instrumental forms of the 18 th century. Analysis and creative work in representative forms. Prerequisite: 58:013; junior standing.
58:122(g). Advanced Composition Class - 3 hrs.
Creative work in the larger forms. Student must iomplete at least one original project in any of these forms. Prerequisites: 58:013; junior standing; 58:022 or consent of instructor.
58:125(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: 58:013; junior standing.

58:127. Jazz Arranging I - 2 hrs.
Basic skills for jazz composer/arranger. Emphasis on instrument ranges and transposition, chord terminology, voicing and doubling principles, harmonization and chord substitution, form, and score organization. Prerequisite: 58:012 or consent of instructor.
58:128. Jazz Arnaging 11 - 2 hrs.
Continuation of $58: 127$. Emphasis on contemporary scoring devices, augmented instrumentation (including strings), contrapuntal and formal problems, score study and analysis. Prerequisite: 58:127.
58:130(g). 20th Century Non-Tonal Music - 2 hrs .
Style and structure analysis of representative compositions of the 20th Century with emphasis on the more recently composed works. Prerequisite: junior standing.
58:180. Theory Survey for Graduates - 2 hru.
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. Styles 1: Major Composers and Thetr Ers - 2 hrs.
Application of analytic techniques to music from plainsong through mid-Baroque (Corelli). Emphasis on era and composer style delineation. Prerequisite: 58:180 or passing score on Graduate Theory Diagnostic Examination.
58:211. Styles II: Mafor Composers and Their Eras - 2 hrs.
Continuation of 58:210. Bach to Debussy. Prerequisite: $58: 180$ or passing score on Graduate Theory Diagnostic Examination.
58:212. Styles III: Major Composers and Thetr Eras - 2 hrs.
Continuation of 58:211. Stravinsky to the present. Prerequisite: $58: 180$ or passing score on Graduate Theory Diagnostic Examination.
58:225. 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: 58:125 or consent of instructor.

## 59 Music Literature

59:010. History of Music I - 3 hrs.
Survey of musical trends from all eras. Early Christian era through Bach (1750). Prerequisite: 52:020.
59:011. History of Music II - 3 hrs .
Continuation of 59:010. Classical period to the present. Prerequisite: 52:020.
59:050. Introduction to Jazz History and Styles - $\mathbf{3}$ hrs.
Evolution of jazz styles and their relationship to the social, economic, and political moods of the period; includes the essential elements of jazz and the influence of jaze on classical and rock music.
59:110(g). Music Literature - Middle Ages and Renaissance - 3 hrs.
Prerequisite: 59:010 and 59:011; junior standing.
59:111(g). Music Literature - Baroque - 3 hrs.
Prerequisite: 59:010 and 59:011; junior standing.
59:112(g). Music Literature - Classic - 3 hrs.
Prerequisites: 59:010 and 59:011; junior standing.
59:114(g). Music Literature - Romantic - 3 hrs.
Prerequisites: 59:010; 59:011.
59:115(g). Music Literature - 20th Century - 3 hrs.
Prerequisites: 59:010 and 59:011; junior standing.
59:120(d). Performance Literature for _- 2 hrs.
Study of music literature available for specific instrument or voice. Combination ensemble-literature course for the performer. Areas available: Brass, Woodwinds, Strings, Organ, Percussion, Piano (I-II), Voice (I-II). Prerequisite: junior standing or consent of instructor.

## 59:129(g). History of American Music Theatre - 3 hra.

Historical development of American music theatre from its roots in European forms and traditions to the present day. Emphasis on stylistic traits of the art form and the literature of each style period.
59:130(g). History of Open - 3 hrs.
Historical development of the opera from its inception (c. 1600) to the present. Prerequisite: junior standing or consent of instructor.

59:131(g). History and Literature of Large Choral Forms - 3 hrs .
Development of large choral forms from the Renaissance to the present. Emphasis on the Mass, contata, oratorio, passion, anthem, and contemporary uses of the chorus. Prerequisite: junior standing or consent of instructor.
59:140(g). 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. Prerequisite: junior standing or consent of instructor.
59:141 (g). History and Literature of Chamber Music - $\mathbf{3}$ 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. Prerequisite: junior standing or consent of instructor.
59:142 (g). History and Literature of the Wind Band - 3 hrs.
Growth and development of wind music from Gabrieli to present. Prerequisite: junior standing or consent of instructor.
59:150(g). American Music - 3 hrs .
History and literature of our nation's music from 1620 to the present. Prerequisite: 59:011; junior standing or consent of instructor.
$59: 151(\mathrm{~g})$. Music of World Cultures - 3 hrs .
Study of non-Western music; Africa, Islam, Indian, Indo-China, Indonesia, China, and Japan, and the role of music in these cultures. Prerequisite: junior standing or consent of instructor.
59:180. Music Literature Survey for Graduates - 2 hrs.
Review of the various style periods, media and forms in music history of our culture. Required of all graduate students who do not demonstrate adequate proficiency as a result of the Graduate Music History Diagnostic Examination.
59:260. History of Musical Instruments - 3 hrs.
Development of musical instruments from antiquity to the present; includes both western and non-western cultures.
59:285. Readings in Music History - 1-3 hrs.
Prerequisite: consent of Graduate Coordinator in Music.
59:289. Seminar in Musle Hietory - 3 hrs.
Musicological research into the various areas of music. May satisfy departmental requirement of 52:221.

## 60 Art

60:001. The Visual World - $\mathbf{3}$ hrs.
Beginning experiences in communication through visual language emphasizing flexible approaches to problem solving; exploration of relationships between the visual arts and other fields of human endeavor. Corequisite for art majors and/or minors: 60:003.
60:003. The Yisual Arts: Current Trends - 3 hrs.
Exploration and discovery of the concepts and modes of expression in the art of our time. Informal lecture with group project participation, Fall. Corequisite for art majors and minors: 60:001.
60:018. Drawing 1 - 3 hrs .
Emphasis on growth in perception of visual form. Range of materials and subject matter.
60:019. Drowing II - 3 hrs .
Continuation of $60: 018$ with greater emphasis upon self-direction. Prerequisite: 60:018.
60:025. Gruphic Derito I - 3 hrs.
Introduction to graphic design concepts and methods. Basics of topography lette forms, layout and print production.

## 60:026. Two-Dimensional Media - 3 hrs.

Beginning experiences in conceiving and making in two dimensions; emphasis on the interaction between work and idea, skills in art making, and the common vocabulary of art. Prerequisites (for art majors and minors): 60:001; 60:003. Corequisite (for art majors and minors): 60:027.

## 60:027. Three-Dimensional Media - 3 hrs.

Beginning experiences in conceiving and making in three dimensions; emphasis on the interaction between work and idea, skills in art making, and the common vocabulary of art. Prerequisites (for art majors and minors): 60:001; 60:003. Corequisite (for art majors and minors): 60:026.

60:032. Creative Photography I - 3 hrs.
Heightening preceptual and conceptual awareness through the intermediacy of the camera and photosensitive emulsions.
60:033. Intaglio - Woodcut - 3 hrs.
Beginning experiences in making intaglio and woodcut prints.
60:035. Lthographs - Screenprint - 3 hrs .
Beginning experience in making lithographic and screenprints.
60:037. Sculpture - 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.
60:040. Survey of Art History I - 3 hrs .
Introduction to the history of art; ancient through medieval.
60:041. Survey of Art History II - 3 hrs .
Introduction to the history of art; renaissance through modern.
60:050. Cernmics I - 3 hrs.
Ceramic materials, design, forming, glazing, and firing.
60:051. Ceramics II - 3 hrs .
Continuation of 60:050 with further development in technical and aesthetic skills. Prerequisite: 60:050.

## 60:055. Genern Crifts - 3 hrs.

Introduction to production of art objects using fibers, leather, wood, paper, metals, and other craft materials and employing a variety of skills and techniques. Explores role of crafts in teaching, recreation programs, and personal expression.
60:056. Fibers - 3 hrs.
Applications of contemporary ideas to traditional skills with fiber materials; introduction to fiber and textile design, including weaving, knotting, batik, tiedye, 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.
60:074. Jewely and Metahwort - 3 hrs.
Forming, joining, decorating, and combining precious and non-precious metals with other materials.
60:080. Patnting I - 3 hrs.
Experience in various painting media.
60:081. Painting II - 3 hrs.
Continuation of 60:080 with greater emphasis upon self-direction. Prerequisite: 60:080.
60:089. Art Major Jury - no credit.
60:091. Elementry Art Education I-2 hrs.
The art-making process of children from pre-school to junior high; philosophy and research of art education, scope and sequence of art tasks for typical and handicapped children, and the articulation of art curriculum with schools and community facilities.

## 60:092. Elementary Art Education II - 3 hrs.

Exploration of tools, materials, and processes of art education; individual and group activities in arts and crafts to develop skill in safe use of tools and materials; includes puppetry and visual display. Requires minimum of 30 hours of observation and participation in a teaching program. Prerequisite: 60:091.

## 60:108. Princtples and Techniques of Arts Manafement I - 3 hrs.

The study of the varied aspects of arts management including operating policies, facilities, staffing and fund raising. This course intends to develop the basic skills and knowledge necessary for a basic understanding of arts management. This course is a component of a minor which offers students a chance to explore this professional area in preparation for further study.
60:109. Princtples and Techniques of Arts Manafement II - 3 hrs.
This course expands on material taught in Principles and Techniques of Arts Management I. Additionally areas such as grantsmanship, legal issues, contracts and budgets will be covered as they affect various arts institutions. This course is a component of a minor which offers students a chance for continuing their studies of this professional area in preparation for further study. Prerequisite: 60:108.

60:110. Art Gallery and Museum Management - 3 hrs.
The particular management problems of art museum operations, including the role of the museum institution as a public trust, will be explored. This includes object management, care and policy; exhibition curatorship and design; museum educational components; accreditation procedures and professional standards. Also an understanding of the history of the development of museums will be explored.
60:111. Lfe Drwing - 3 hrs .
Drawing from the model using a variety of media. May be repeated for credit. Prerequisite (for art majors only): 60:018.
60:118. Drawing III - 3 hrs .
Prerequisite: 60:019 or 60:111.
60:125. Graphic Design II - 3 hrs.
Exploration of approaches to illustration and the integration of type and graphic images. Includes class problems as well as design projects for the university and community. Prerequisite: 60:025.
60:126. Graphic Desifn III - 3 hrs.
Advanced problems in graphic design. Design systems, corporate identity packaging and signage. Prerequisite: 60:125.
60:127. Publication Design - 3 hrs .
Lecture-studio course on layout and typography of various types of publications; includes content research and analysis, display, text type and illustration trends, design formats, and specialized publications and audiences. Prerequisite or corequisite (for art majors or minors only): 60:125.
60:128. Graphic Design-lllustration - 3 hrs.
Basic media, techniques, paper selection, and tools for execution of solutions ranging from black and white line to full-color, continuous tone in 2D and 3D form. Specialized commercial illustration problems imposed by mechanical production requirements considered. Historical overview of styles. Prerequisite or corequisite: $60: 125$.
60:130. Creative Photopraphy II - 3 hrs.
Creative use of the medium for continuing students; emphasis on development of individual's ideas and directions; includes advanced processes, presentation and exhibition techniques. Prerequisite: 60:032 or equivalent.

## 60:131. Creative Photography 111 - 3 hrs .

Extension of photography as creative image making; in-depth look at processes, criticism, and student's own ideas and directions in photography. Prerequisite: 60:130.
60:132. Color Photography - 3 hrs.
Introduction to most commonly used color photographic processes including transparency film, negative films, negative and reversal printing papers. Prerequisite: $60: 130$ or equivalent.
60:134. Advanced Printmaling - 3 hrs .
Advanced work with greater emphasis on self-direction. Prerequisite: 60:033 or 60:035. May be repeated once for credit.
60:137. Advanced Sculpture - 3 hrs .
Continuation of 60:037 with greater emphasis upon self-direction. May be repeated once. Prerequisite: 60:037.
60:141(g). Art History - 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 Greece; 6. Ancient Rome; 7. Chinese. Prerequisites: junior standing or (for art majors) 60:040 and 60:041.
60:142(1). Italion Renalssance Art - 3 hrs.
History of 14th, 15 th, and 16 th century Italian art. Prerequisites: junior standing or (for art majors) 60:040 and 60:041.
60:144(g). Baroque and Rococo - 3 hrs.
History of Baroque and Rococo art in 17th and 18th century Europe. Prerequisites: junior standing or (for art majors) 60:040 and 60:041.
60:146(g). 19th Century European Art - 3 hrs .
Napoleonic art to Art Nouveau. Prerequisites: junior standing or (for art majors) 60:040 and 60:041.
60:147(g). Oriental Art - 3 hrs .
Introduction to the arts of India, Southeast Asia, China and Japan. Prerequisites: junior standing or (for art majors) 60:040 and 60:041.
60:148(s). Contemporary Art History - 3 hrs .
Studies in the nature and role of contemporary art. Prerequisites: junior standing or (for art majors) 60:040 and 60:041.

60:149(8). American Art - 3 hrs.
The art of the United States from the colonial period to World War II including architecture, painting, sculpture, decorative arts and photography. Prerequisite: junior standing.
60:150. Cernmics III - 3 hrs.
Prerequisite: 60:051.
*00:156. Advanced Crafts - 3 hrs.
Continuation of $60: 055$ or $60: 056$ with greater emphasis upon self-direction. May be repeated once. 1. Crafts - Prerequisite: 60:055. 2. Fibers - Prerequisite: 60:056.
60:157. Advanced Wood Design - 3 hrs.
Continuation of 60:057 with greater emphasis upon self-direction. May be repeated once. Prerequisite: 60:057.
60:170. Advanced Metahwort - 3 hrs.
Continuation of 60:074 with greater emphasis upon self-direction. May be repeated once. Prerequisite: 60:074.
60:175. Undergraduate Studio - 1-6 hrs.
Investigation of personal visual concepts and techniques in a given studio area for qualified students who demonstrate intensive involvement and seek professional competency. Individual instruction. Sections: 1. Ceramics; 2. Drawing; 3. Graph-
ic Design; 4. Metahwork; 5. Painting; 6. Photography; 7. Printmaking; 8.
Sculpture; 9. Watercolor Prerequisite: 9 hours in studio area chosen. Credit to be determined by consent of instructor at time of registration. May be repeated for credit.
60:180. Peinting III - 3 hrs.
Prerequisite: 60:081.
60:181. Witercolor -3 hrs .
Exploration of watercolor medium and related water-base media. Prerequisite: 60:081.
60:189. B.PA. Exhlibtion - no credit.
60:193. Secondry Art Education I - 2 hrs.
Art media processes, facilities, students, content, methods, and philosophy of secondary art education; its relation to the elementary level, and an emphasis on middle/junior high art activities, courses and programs. Prerequisite: 60:092.
60:194. Secondry Art Education II - 2 hrs .
Continuation of $60: 193$ with emphasis on senior high art activities, courses, and programs. Prerequisite: 60:193.
60:198. Independent Study.
60:275. Graduate Studio.
Investigation of personal visual concepts and techniques in a given studio area for qualified students who demonstrate intensive involvement and who seek professional competency. Individual instruction. Credit to be determined at time of registration. May be repeated for credit. 1. Ceramics; 2. Drawing; 3. Graphic Design; 4. Metalwork; 5. Painting; 6. Photography; 7. Printmaking; 8. Sculpture. Prerequisite: approval of Chairperson, Graduate Studies in Art.
60:280. Seminar: Critique and Anilusis - 2 hrs .
Analysis of concepts, forms and techniques encountered in own creative studio work and work of others. Investigation of individually selected concepts and materials. Examines role of professional artist and public.
60:289. Seminar: Issues in Higher Education in the Visual Arts I - 2 hrs. Introduction of various issues in higher education which confront the collese art instructor
60:289. Seminar: Issues in Higher Education in the Yisual Arts II - 2 hrs . Individually selected issues in the visual arts for discussion and research.
60:289. Seminar: Intra-Media - 2 hrs.
Theories and philosophies of contemporary artists and art criticism as related to students studio work.
60:293. Research in Art History - $\mathbf{1 - 3} \mathbf{~ h r s .}$
May be repeated for credit. Prerequisite: 6 hours in graduate-level art history.
60:294. Internship - 3-9 hrs.
Student-selected areas of practical internship experiences relating to student's particular interest in the visual arts in higher education. Maximum enrollment per semester: 6 hours. Prerequisite: department approval.

[^2]60:295. Seminnr in Teaching Art - 3 hrs.
Specific art education relating to public schools with emphasis upon continuity art activity. Satisfies the special methods elective for the professional core.
60:296. The Supervislon of Art - 3 hrs .
Teaching problems and practices relating to the curriculum and the supervision of art.
60:297. Practicum.
60:299. Research

## 62 English Language and Literature

62:001. Writing: Fundamentals - 3 hrs .
May not be taken for credit by those who have passed the Writing Competency Examination or by those who have passed any of the following: 62:003, 62:034, 62:103, 62:104, 62:105, 66:040, 66:140.
62:002. College Preparatory Composition - 0 hr .
Instruction in the process of composing and in the mechanics of written English to prepare students for college-level writing. Designed for new students who do not meet the UNI English admissions requirement; successful completion of this course satisfies the requirement. Offered on an ungraded basis; meets three hours a week.
62:003. Intermediate Witting: Exposition - 3 hrs.
Exploring and communicating ideas; emphasis on various prose patterns and techniques. Prerequisite: pass on Writing Competency Examination (does not apply to students enrolled prior to fall semester 1978) or 62:001. Does not court for credit on any English major or minor.
62:020. Science Fletion - 3 hrs.
Development of modern science fiction. Current trends; parallels and contrasts between science fiction and "literary" fiction.
62:031. Introduction to Literture - $\mathbf{3} \mathrm{hrs}$.
Understanding and appreciating the basic forms of imaginative literature. May not be taken for major or minor credit.
62:034. Critical Writing About Literature - 3 hrs .
Practice in analysis of poetry, drama, and fiction. Prerequisite: pass on Writing Competency Examination or 62:001.
62:035. Introduction to Film - 3 hrs.
An eramination of an introductory level of four film genres: narrative, documentary, animated, experimental; preparation for further work, either individually or academically.
62:042. Tradition of Brittsh Literature to 1800 - 3 hrs .
Major trends and masterpieces from Medieval, Renaissance, and 18th Century periods: 700-1800.
62:043. Trdition of British Literature since 1800 - 3 hrs .
Major trends and masterpieces from the Romantic, Victorian, and Modern periods: 1800 to present.
62:044. Popular Literature: $\qquad$ -3 hrs .
Offered on diverse topics (e.g., mystery and crime fiction, the romance, the western) to be announced in Schedule of Classes. May be repeated for credit only by taking different topics.
62:052. The Tradtion 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.
62:053. American Masterpleces - 3 hrs.
Selected works by major American writers from Colonial times to present. Does not count for credit on English majors or minors.
62:055. Native American and Chicano Literature - 3 hrs.
Introductory study of selected American Indian and Chicano literature in a variety of forms: fiction, poetry, drama, myth, and legend. Does not count for credit on English majors or minors.
62:057. Afro-American Lhereture - 3 hrs .
A study of Black writers in America. Does not count for credit on English majors or minors.
62:060. Tradition of European Literature to 1650 - 3 hrs. Masterpieces of Westem literature from the beginnings to 1650 .
62:061. Tradition of European Literature since $1650-3 \mathrm{hrs}$.
Masterpieces of Western literature from 1650 to present.

62:070. Creative Writing - 3 hrs.
Initial experiences in writing of fiction or poetry. May not be repeated for credit.
62:103. The Personal Essey - 3 hrs.
Writing various types of essays (e.g., narrative, descriptive, expository, persuasive); attention to stylistic questions and possibilities. Prerequisites: Pass on Writing Competency Examination; junior standing or consent of instructor.
62:104. Artument and Persuasion - 3 hrs.
Writing on controversial issues; emphasis on development of evidence and study of audience psychology. Prerequisites: Pass on Writing Competency Examination; junior standing or consent of instructor.
62:105(g). Report Writing - 3 hrs .
Business, scientific, and technical writing; emphasis on clarity and precision. Scientific or business background not necessary. Prerequisites: Pass on Writing Competency Examination; junior standing or consent of instructor.
62:112(g). European Dnma: Anclent Greelss to 1900-3 hrs.
Major dramatists of the Westem tradition from ancient Greece to 19th-century Europe (in English translation). Prerequisite: 62:034 or junior standing or consent of instructor.
62:113(1). British Drama to 1900-3 hrs.
Emphasis on contemporaries of Shakespeare such as Marlow, Jonson, and Webster: also includes selected medieval, Restoration, 18th- and 19th-century dramas. Prerequisite: 62:034 or junior standing or consent of instructor.
62:115(g). Modern Drama - 3 hrs.
American, British and Continental. Prerequisite: 62:034 or junior standing or consent of instructor.

## 62:116(g). English Renaissance - 3 hrs .

1500-1642. Prerequisite: 62:034 or junior standing or consent of instructor.
62:117(g). 18th Century British Literature - 3 hrs.
Major writers of satire, verse, and prose including Dryden, Swift, Pope, and Johnson. Prerequisite: 62:034 or junior standing or consent of instructor.
62:118(g). Brttish Romantic Wrters - 3 hrs.
Early 19th-century writers such as Wordsworth, Keats, Hazlitt, and Scott. Prerequisite: 62:034 or junior standing or consent of instructor:
62:119(g). Brtish Victorian Wrtters -3 hrs .
Later 19th-century writers of verse and prose such as Tennyson, Browning, Amold, Carlyle, Mill, and Ruskin. Prerequisite: 62:034 or junior standing or consent of instructor.
62:120(g). 20th Century Brtish Novel - 3 hrs.
Prerequisite: 62:034 or junior standing or consent of instructor.

## 62:121(g). The American Remissance - 3 hrs .

Major writers of the 1840 's and 1850's: Hawthome, Melville, Emerson, Thoreau, and early Whitman. Prerequisite: 62:034 or junior standing or consent of instructor
62:123(g). American Realism and Naturalism to WWI - 3 hrs.
Literary selections 1870 to World War I; emphasis on fiction. Prerequisite: 62:034 or junior standing or consent of instructor.
62:124(g). 20th Century American Novel - 3 hrs.
Prerequisite: 62:034 or junior standing or consent of instructor.
62:126(g). Short Fiction - 3 hrs.
Prerequisite: 62:034 or junior standing or consent of instructor.
62:128(g). 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. Prerequisite: 62:034 or junior standing or consent of instructor.
62:144(g). Chaucer - 3 hrs.
The poetry of Chaucer, may include other medieval writers. Prerequisite: 62:034 or junior standing or consent of instructor.
$62: 147(\mathrm{~g})$. Milton -3 hrs .
Milton's major English poetry and prose. Prerequisite: 62:034 or junior standing or consent of instructor.
62:148(g). Shakespeare - 3 hrs .
Prerequisite: 62:034 or junior standing or consent of instructor.
62:153(g). Major American Poets to 1900 - 3 hrs .
Prerequisite: 62:034 or junior standing or consent of instructor.

62:155(g). European Novel - 3 hrs .
Major works of prose fiction by writers such as Cervantes, Stendhal, Flaubert, Dostoevsky, Tolstoy, and Mann (in English translation). Prerequisite: 62:034 or junior standing or consent of instructor.
62:156(g). British Novel to 1900-3 hrs.
Major fiction writers, such as Fielding, Sterne, Austen, Dickens, Thackeray, the Brontes, George Eliot, and Hardy. Prerequisite: 62:034 or junior standing or consent of instructor.
62:157(g). Modern Afro-American Litenture - 3 hrs .
Selected works by prominent Afro-American writers since 1940. Prerequisite: 62:034 or junior standing or consent of instructor.
62:161(g). Literary Crticism - 3 hrs .
Important modern and traditional critical positions and their application to imaginative literature. Prerequisite: 62:034 or junior standing or consent of instructor:
62:165(g). Literature for Young Adults -2 hrs.
Reading and evaluation of literature suitable for adolescents. Prerequisite: 62:034 or junior standing or consent of instructor:
62:174(g). Poetry Wortushop - 1.6 hrs .
May be repeated for credit. Prerequisite: 62:070 or consent of instructor.
62:175(g). Fiction Wortashop - $1-6$ hrs.
May be repeated for credit. Prerequisite: 62:070 or consent of instructor.
62:188(g). Seminar in Liternture - 3 hrs.
Topic to be announced in Schedule of Classes. Prerequisite: 62:034 or junior standing or consent of instructor.
62:190(d). The Teaching of English - 3 hrs .
Prerequisites: 20:018; 20:040; 25:050 (Level II).
62:191(g). Seminar for the Student Teacher - 1 hr
An intensive course to integrate $62: 190$ with the student teaching experience. Offered only on ungraded basis.
62:193(g). The Teaching of Writing - 3 hrs.
62:194. Practicum: Tutoring Writing - 2 hrs .
Training in the processes of writing and techniques of tutoring writing; application of training to tutoring students in writing skills and writing projects about three hours a week. May be repeated for one hour of credit by doing the tutoring without repeating the training. Prerequisite: consent of instructor (application required).

## 62:198. Independent Study

62:201. Introduction to Graduate Study in English - 3 hrs.
Introduction to the problems, techniques, and tools to graduate-level study and research in English.

## 62:204. Topics in Lterary Crticism - 3 hrs .

Selected problems in the theory of literary art, the history of criticism, and the interpretation of particular works.
62:207. The English Curriculum - 3 hrs .
Theories behind the teaching of English and trends in curriculum methods and materials, particularly in secondary English.
62:221. English Remaissance Literature - $\mathbf{3}$ hrs.
(1485-1660).
62:223. Restoration and 18th Century English Literature - 3 hrs.
(1660-1798).
62:225. 19th Century English Literature - 3 hrs.
Romantic or Victorian (1798-1900).
62:226. Modern English Literature - 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 Literature - 3 hrs.
Literature from 1945 to the present; may include poetry, drama, and/or fiction.
62:264. Continental Literature - 3 hrs.

## 62:284. Seminar in Literature - 3 hrs.

A selected generic, thematic, or critical topic or a specific writer or writers; topic to be announced in Schedule of Classes. May be repeated for credit.
62:291. Seminar in the Teaching of English - 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 its diverse population.
62:297. Practicum.
Graduate-level student teaching. See p. 102. Prerequisite: approval of instructor. 62:299. Research.

## 63 Linguistics

63:010. Landuage and Culture -3 hrs .
Fundamental concepts used in the study of language, culture, and their interrelationships. Discussion of ethnolinguistic variations and universals.
63:105(g). Spoken EngHish as a Foreign Language - 3 hrs.
Patterms of idioms of English for non-native speakers with guided practice in speaking and comprehension. Offered only on ungraded (credit/no credit) basis. May be taken for graduate credit, but may not be applied to any graduate degree. Prerequisite: consent of instructor.
63:106(s). Written Engltsh as a Foreipn Languate - 3 hrs.
Basic writing skills in English as a foreign language. English grammar, paragraph development, guided and free writing. Offered only on an ungraded (credit/no credit) basis. May be taken for graduate credit, but may not be applied to requirements for any graduate degree. Prerequisite: consent of instructor.
63:125(g). Introduction to Linguistics - 3 hrs.
Examination of the major phonological, syntactic, and semantic aspects of a variety of human languages.
63:130(5). The Structure of English - 3 hrs.
Linguistic analysis of the major phonological, syntactic, and semantic properties of modern American English.
63:143(g). History of the English Language - 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: 63:125 or $63: 130$.
63:145(g). Kistorical and Comparative Linguistics - $\mathbf{3} \mathbf{h r s}$.
Theories of language change and diversification. Discussion of genetic and typological and classification, reconstruction, dialect emergence, and linguistic universals. Prerequisite: 63:125 or 63:130.
63:154(g). Phonoloty - 3 hrs.
The sound systems of human languages, including articulatory and acoustic phonetics, structural phonemics, distinctive features, and generative phonology. Prerequisite: 63:125 or 63:130.

## 63:156(g). Syntax - 3 hrs .

Theories of grammar from a generative-transformational point of view with special emphasis on English syntax. Prerequisite: 63:125 or 63:130.

## 63:158(g). Semantics - 3 hrs.

Traditional and recent theories of meaning in language. Prerequisite: 63:125 or 63:130.
63:160(g). Sociolinguistics and Dialectology - 3 hrs .
Language variation as an expression of socioeconomic, geographic, and personal status. Prerequisite: 63:125 or 63:130; 63:143.
63:190(s). Applied English Linguistics for Teachers - 3 hrs.
Linguistic insights applied to study of language use - writing, reading, spelling, and vocabulary; for prospective and current teachers of English. Prerequisites: 63:125 or 63:130; junior standing or consent of instructor.
63:192(1). Problems in English Grammar - 3 hrs.
Prerequisite: 63:125 or 63:130.
63:194(d). Teaching English to Speakers of Other Languages (TESOL) -3 hrs .
Methods and materials. Classroom practices, textbooks, language laboratory, testing. Prerequisite: 63:125 or 63:130.
63:197. TESOL Practicum - 1 hr
Practical experience in teaching English to speakers of other languages. Corequisite: 63:194.

63:198. Independent Study:
63:254. Seminar in Phonology - 3 hrs.
63:256. Seminar in Syatax - 3 hrs.
63:258. Seminar in Semantics - 3 hrs.
63:280. Toples in Linguistics - 1 hr
An open forum for discussion of crucial issues in the theory and application of linguistics. Maximum of 3 credit hours.
63:285. Seminur in Language - 3 hrs.
Topic to be announced in Schedule of Classes; may be repeated for credit.
63:292. Second Language Acquisition - 3 hrs.
Theories of second language acquisition, primarily as reflected in two approaches: contrastive analysis and error analysis. Investigation of social and psychological variables related to second language leaming and applications for classroom teacher.
63:295. Language Testing - 3 hrs.
An examination of the basic approaches and techniques for constructing and interpreting language tests.
63:297. Practicum.
Graduate-level student teaching of English as a foreign language.
63:299. Research.

## 64 Religion

64:020. The Hertage of the Bible - 3 hrs.
A non-sectarian study of the Bible.
64:030. What is Religion? - 3 hrs.
Basic forms and views or religious phenomena, such as encounter, tradition, ritual, community, divine law, meditation, mysticism, response to life-crisis, and personal growth and fulfillment.

## 64:100. Biblical Greek - 3 hrs .

Introductory study of the Gospel of St. John designed to acquaint the student with the linguistic tools of textual analysis.
64:111(g). Development of Christianity: Basic Doctrines - 3 hrs .
Historical study of the development of the Christian doctrines of the Trinity, of Christ, and of the church, and other basic beliefs, centering on the first five centuries.
64:112(g). Development of Christianity: Catholicism - 3 hrs.
The development of Christian worship, sacraments, religious life, and the monastic, mendicant and mystical movements, as exemplified in Roman Catholicism up to 1500 A.D.
64:114(g). Development of Christianity: Reformation and Enlightenment -3 hrs .
Luther, Calvin, the Radical Reformation; the Counter-Reformation; the development of Protestant orthodoxy and pietism; and other movements of the period.
64:115(g). Development of Christianity: Fath and Modern Thought - 3 hrs. Issues raised by the encounter between traditional Christian faith and modern concepts and methods of philosophy, science, history, sociology, and cultural criticisms. Examines positions of both 19th- and 20th-century theologians.
64:117(g). Relistion 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. Prerequisite: junior standing or consent of instructor. (Same as 96:145.)
64:121(g). Religion and Modern Lterature - 3 hrs.
Analysis of religious ideas and images in 19th- and 20th-century poetry, fiction, and drama. Prerequisite: junior standing or consent of instructor.
64:123(g). Religion and Literature - 3 hrs.
Religious convictions and influences in the sacred and secular literatures of the West. Prerequisite: junior standing or consent of instructor.
64:124. Religions of the World - 3 hrs .
Living religions of man with emphasis on their relevance to interpretations of existence, the problem of meaning and values, and human destiny.
64:126(g). Meditation and Mystical Experience - 3 hrs.
Examination of various techniques of meditation and their results, drawing from Yoga, Zen, Buddhist, Christian, and secular sources including first-hand accounts of meditational practice and philosophic and psychological studies in the area of mysticism.

64:130(d). Hinduism and Buddhism - 3 hrs . Hinduism, Jainism, Buddhism, Islam.
64:132(8). Confucianism, Troism, and Zen - 3 hrs. Thoism, Confucianism, Buddhism, Shintoism.
64:134(g). Judaism, Eastern Christianity, Islam - 3 hrs.
The origin and development of Judaism, Eastern Christianity, and Islam; including examination of ancient Egyptian, Mesopotamian, and Graeco-Roman religions. 64:124 strongly recommended to precede.
64:135(g). Judaism - 3 hrs .
The historical and theological roots of Judaism with focus on the development of the Jewish "scriptures" and their effect on current Jewish practices and beliefs. Prerequisite: junior standing or consent of instructor.
64:139(8). Atheism - 3 hrs.
A critical introduction to various types of modern atheism.
64:141(g). Old Testament - 3 hrs.
An introduction to the history and ideas of the Old Testament. Prerequisite: junior standing or consent of instructor.
64:142(g). New Testament - 3 hrs.
An introduction to the history and ideas of the New Testament. Prerequisite: junior standing or consent of instructor.
64:160(g). Psycholo of Religious Experience - 3 hrs.
Basic structures of religious experience, in relation to the concepts of identity, the unconscious, transformation, and transpersonal reality.
64:161. Religion, Magic, and Witchernft - 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. (Same as 99:161.)
64:162(g). Women and Christianity - 3 hrs.
Examines the history and function of gender in the symbolization of the Christian tradition; explores the institutionalization of sex roles in Christianity; discusses the interaction between the Christian religion and cultural patterns that define the social role, status, and image of women. All interested students are encouraged to contact the instructor. Prerequisites: junior standing or consent of the instructor.
64:165(g). Socioloy of Religious Communities - 3 hrs.
The use of social theory and methods for explaining religious community life: case studies of individual religious groups or movements, questionnaire studies of religious groups in a society, and social analysis of historical cases of past religious life. Prerequisite: junior standing or consent of instructor.
64:186(g). Studies in Religion - 3 hrs.
Study of special topics to be announced in advance of registration.
64:189(g). Inditidual 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.

## 65 Philosophy

65:021. Introduction to Philosophy - 3 hrs.
65:100(g). History of Philosophy - Anclent - 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(d). History of Philosophy: Medieval - 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.
65:104(s). History of Philosophy - Modern - 3 hrs.
History of philosophy from Kant to the present; emphasis on idealism, romanticism, materialism, positivism, phenomenology, existentialism. 65:021 recommended to precede.

65:105(g). Marxiem - 3 hrs.
Basic doctrines of Karl Marx and Frederick Engels and others within Marxist tradition. Dialectical and historical materialism; the Marxist conception of nature and human society; historical and contemporary influence of Manxism on economic and political developments, religion, ethics, science and technology, literature and the arts. Prerequisite: junior standing or consent of instructor.
65:113(g). Philosophy of Religion - 3 hrs .
Introduction to the philosophical examination of religious ideas. Strongly recommended that some work in philosophy or religion precede this course.
65:119. Philosophy of Science - 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. Ethics - 3 hrs.
A study of the major problems of moral conduct, with emphasis on contemporary ethical theories.
65:143. Aesthetics - 3 hrs .
Problems of experiencing and interpreting the arts presented through readings and discussion of the various arts.
65:145. Lotic - 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). Knowledge and Really - 3 hrs.
Study of the variety of knowledge-claims about the world and of the structures of reality implied.
65:152(g). Existentialism - 3 hrs.
A study of interpretations of human experience in contemporary thought. Presupposes no previous knowledge of philosophy.
65:153(g). The Human Person - 3 hrs.
A study of various interpretations of the nature and process of being human.
65:165(g). Epistemoloy - 3 hrs.
An examination of classical and contemporary texts concerning the nature of truth, belief, and knowledge. Intended for advanced undergraduates or graduate students in linguistics, modern languages, or the sciences. Prerequisite: consent of instructor.
65:170. The Present Predicament - 3 hrs.
Explorations 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.
65:172(g). Captallism, Socinlism, Democracy - 3 hrs.
Examination of the philosophical bases and ideological contrasts between capitalism, socialism, and democracy as an introduction to social and political philosophy. Prerequisite: junior standing or consent of instructor.
65:186(g). Studies in Philosophy - 3 hrs.
Study of philosophical thinker or problem to be announced in advance of registration.
65:189(g). Individual Readings in Philosophy - $1-3 \mathrm{hrs}$.
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.
65:200. Philosophy of Language - 3 hrs.
An exploration of the problems of meaning, truth, understanding, and interpretation as analyzed by modern philosophers. The topics discussed will include speech acts and intentionality, the significance of syntactical form, reference and ontology, and the conceptual presuppositions of understanding and communication.

## 66 Journalism

66:032. Introduction to Mass Media - 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. Prerequisite: minimum 30 words per minute typing skill.
66:102(g). Magaine Article Writing - 3 hrs .
Writing and marketing different types of articles for various publications. Prerequisite: 66:040 or 62:003 or consent of instructor.

66:103(g). Hith School Newspaper and Yearbook - 3 hrs.
Advising school publications; staff organizations; methods of printing; policies, style, content, textbooks, business management. Prerequisite: 66:040 or consent of instructor.
68:110(d). Fiald Experience in Journalism - 1-6 hrs.
Provide journalism minor with experience on newspapers or in secondary school journalism programs. Prerequisites: 66:040; 66:140; junior standing; consent of instructor.
66:131(g). History of Mass Communications - 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.
66:140(g). 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.
66:141. Feature Writing - 3 hrs .
Writing feature articles for publication. Prerequisite: 66:040 or consent of instructor.
66:150(g). Editug and Design - 3 hrs .
Copyreading, proofreading, writing headlines; studying make-up, typography, and photography. Prerequisite: 66:040 or consent of instructor.

## 68 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. Humanitties II - 4 hrs.
A continuation of 68:021 (from the 17th century to the present).
68:040. Women's Studles: Introduction - 3 hrs.
An interdisciplinary approach to the study of Feminism and those aspects of sexrole stereotyping and socialization in institutions, programs, and curricula which prevent sex-fair treatment for all.
68:102(g). Non-Vertal Communication - 3 hrs .
Patterns of human expression apart from the spoken or written word. (Same as 50:102.)
68:124. Foreign Area Studies - China - 3 hrs .
A historical treatment of significant elements of Chinese culture and major aspects of modern Chinas transformations since the mid-nineteenth century.
68:125. Foreign Area Studies - India - 3 hrs .
A historical treatment of significant elements of Indian culture and major aspects of modem India's transformation under British rule and since independence.
68:127. Foreipn Area Studles: Middle East - 3 hrs.
An interdisciplinary examination of significant elements of Middle East culture and society, its current patterns, tensions, and contributions.
68:128. Forcitin Area Studies: Africo - 3 hrs .
An interdisciplinary examination of contemporary African society and culture, its historical heritage, its problems, prospects, and importance.
68:130. Culture of the Ghetto - 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 Chotto 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). Tratedy - 3 hrs .
The interpretation of classical, Christian, and modern works portraying the human encounter with suffering and death.
68:167. The Uses of the Humanities in Becoming Human - 3 hrs.
Using a mixture of films, text, interdisciplinary readings and class discussion, this course investigates specific uses of the humanities in the art of living.
68:168. Mytholaty - 3 hrs .
Study of primitive and sophisticated examples of myth and mythopoetic thinls from a variety of cultures; emphasis on how myths function in art, society, and t. individual.
68:189(g). Seminar in Environmental Problems - 3 hrs.
Experience in environmental problem solving of both a theoretical and praction nature. Prerequisite: consent of instructor.
68:192. JunionSenior Seminar - 3 hrs .
Seminar in humanities offered as indicated in Schedule of Classes. For upperclam, students of any major. May be repeated for credit in different fields.
68:194(g). Seminar on Death and Dytas - 3 hrs.
Ideas and research concerning the anticipation of dying, toward the goal of sensitive communication with those most affected by death - the suicidal, the terminally ill, and the grieving.
68:198. Independent Study.
(See pp. 59, 143.)

## 70 Languages

70:009. Preparation for Study Abroad - 2 hrs .
For students planning to study 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.
70:110(g). Comparative Study of Western Liternture and Civllization - 3 himy 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 eamed may be counted toward a major in a foreign language. Taught in English. Prerequisiter junior standing or consent of instructor.

## 70:120(g). 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. Prerequisite: junior standing or consent of instructor.
70:180(g). Thnslation of Eterary Texts - 3 hrs.
Theories and techniques of literary translation. Prerequisites: 7x:101 or othel advanced composition course in a second language; junior standing or consent $\tilde{w}_{j}$ instructor.
70:181(8). Translation Theory - 2-3 hrs.
To be taught in English. Explores, with the help of extant literature, various aspects of translation, such as skills vs. creativity, the relationship between original and translation, modes of translation, and a diachronic overview of the philosophy of translation. Prerequisite: reading knowledge of one foreign language, junior standing and consent of instructor.
70:190(d). The Taching of Foreign Languages - 2-4 hrs.
Credit also as a course in education for a student whose major is foreipn languages. This course ordinarily should precede student teaching: Prerequisiteet 72:101 or 74:101 or 78:101.
70:195(g). Research Methods in Modern Languages - 1 he
Preparation for writing the required M.A. research paper. Guided visits to the library stressing modem language sources, practice in compiling a bibliography for topic(s) relevant to the individual student. Exercises in selecting, focusing limiting and developing a topic in the student's target language. Prerequisite: senior standing or permission of instructor.

## 70:198. Independent Study.

70:230. Advanced Literary Translation - 3 hrs.
Preparing literary translation in English of a representative cross-section of literary genres. Extensive discusson of the practical and theoretical problems involved. Emphasis on creative aspects. Prerequisites: B.A. in one foreign language and 70:180.

## 71 Chinese

## 71:001. Elementry Chinese I - 5 hrs.

 For beginners.71:002. Elementary Chinese II - 5 hrs.
Continuation of Elementary Chinese I. Prerequisite: 71:001 or approval of instructor
71:011. Intermediate Chinese I - 5 hrs.
Continuation of Elementary Chinese II. Progressive development of writing, reading and speaking skills through a sequence of exercises relating to daily practical living. Grammatical refinement using numerous illustrations of more difficult new words in dialogues on everyday topics. Prerequisite: 71:002 or approval of instructor
71:012. Intermediate Chinese II - $\mathbf{5} \mathbf{h r s}$.
Continuation of Intermediate Chinese I. Prerequisite: 71:011 or approval of instructor

71:101. Advanced Chinese I - 3 hrs.
Increased use of compounds. Review of more difficult characters. Introduction to Chinese classical literature. Prerequisite: 71:012 or approval of instructor.
71:102. Advanced Chinese II - 3 hrs.
Continuation of Advanced Chinese I. Prerequisite: 71:101 or approval of instructor.

## 72 French

## (See page 89 for programs in French.)

## 72:001. Elementary French I - 5 hrs.

For beginners. Not recommended for students who have had two or more years of French in high school or the equivalent.

## 72:002. Elementary French II - 5 hrs.

Continuation of 72:001. Not recommended for students who have had three or more years of French in high school or the equivalent. Prerequisite: 72:001 or equivalent.
72:011. Intermediate French - 5 hrs.
Provides thorough review of the patterns of French as well as development of vocabulary and emphasis on speaking and writing. Prerequisite: 72:002 or equivalent.

## 72:051. Composition - 2-3 hrs.

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. Conversation -2-3 hrs.
Develops oral fluency through pattem 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 - 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 - 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: 72:051 and 72:061; or equivalent.
72:090. Teaching French in the Elemantry Schools - 1 hr Techniques and practice in teaching French; includes weekly training experience in the local schools plus class sessions. May be repeated twice for credit. Prerequisite: consent of instructor.

72:091. Blingual Pre-Practicum - 1-6 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. Only 3 credit hours may be applied to a major or minor in French. Prerequisite: consent of instructor. May be repeated, but not to exceed 6 hours. Offered only on a credit/no credit basis.

## 72:101(g). Advanced Composition - 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: 72:070 or 72:072 or equivalent.

## 72:103(g). Advanced Conversation - 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(c). Stylistics - 3 hrs.
An introduction to stylistic analysis. Development of style in composition through study of excerpts from contemporary French works and literary translation into French. Prerequisite 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 taped material, readings, radio and television broadcasts, and movies. Offered only on summer study tour
72:108(8). Introduction to Interpreting - 3 hrs .
An introduction to consecutive and simultaneous translation. May be repeated once for credit. Prerequisite: 72:103 or comparable fluency in French.
72:114(8). Short Stories - 3 hrs .
Short stories from Vigny, Merimée, Daudet, Maupassant, Aymé and others. Prerequisite or corequisite: 72:101 or equivalent.
72:118(g). Popalar Prose Fiction - 3 hrs.
Novels from V. Hugo, A. Dumas, P. Benoit, Maurois, Daninos, Druon and/or others: Prerequisite or corequisite: $72: 101$ or equivalent.

## 72:120. French Ctwilization for Business Students - 3 hrs.

Provides an introduction to the civilization, geography, politics and economics of the French-speaking countries. Emphasis is placed on acquainting the business student with the customs and thoughts of these countries and their peoples. Taught in English. Does not count toward a major in French.
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, economy, and art. Prerequisite or corequisite: 72:101 or equivalent. May be repeated once for credit in summer institutes abroad.
72:125(g). French Culture and Civilization - 3 hrs.
Includes historical, cultural and sociological background for the understanding of contemporary France. May be repeated in summer institutes abroad for 2 hrs. credit. Prerequisite: 72:101 or equivalent.
72:126. French Summer Symposium: (Topic) - 2-6 hrs.
An intensive summer course designed to complement courses offered during the fall and spring semesters. A specific topic and number of credit hours will be indicated in the Schedule of Classes for each session offered. May be repeated, except where title is identical. Prerequisite: 72:101 or equivalent.
72:128(g). Literature of Ideas - 3 hrs .
Montaigne, Pascal, La Rochefoucauld, Saint Simon, La Bruyere, Montesquieu, Voltaire, Chateaubriand, Rousseau, de Tocqueville and their modern successors. Prerequisite or corequisite: 72:101 or equivalent.
72:131(d). The Comedy from Mollere to 1890 - 3 hrs.
Plays from Moliêre, Marivaux, Beaumarchais, Musset, Labiche. Prerequisite or corequisite: 72:101 or equivalent.
72:135(g). Poetry and Verse Drama - 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 19th and 20th Centurles - 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 equivaient.

## 72:160(g). Advanced Oral Practice - 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. Prerequisite or corequisite: 72:101 or equivalent.

## 72:161(g). Problems in French Pronunciation - 2 hrs.

Correction of and practice in producing French sounds, intonation rhythm and stress to minimize foreign accent. Prerequisites: 72:051 and 72:061; or equivalent.
72:180(g). Applied Linguistics: French - 3 hrs.
Basic linguistic concepts applied to learning the French language. Prerequisite 72:101 or equivalent.
72:185(g). Introduction to Translation - 3 hrs .
An introduction to journalistic and technical translation using varied textual materials (public media, scholarty and professional texts), from English to French and French to English. May be repeated once for credit. Prerequisite: 72:101 or equivalent.
72:191. Blingual Practicum - $1-3 \mathrm{hrs}$.
Participation in lower-level class activities to acquire first-hand knowledge of methodology involved. Participants meet on regular basis with instructor to discuss, in French, their experiences; reinforces and expands conversational command of the language. May be repeated, but not to exceed 3 hours. Prerequisite: consent of instructor.
72:201. Advanced Composition and Stylistics - $\mathbf{3}$ hrs.
Study of stylistic devices; examination of principal morphological, syntactical and semantic problems.
72:203. Structure of French - 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.
72:207. 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.
72:220. Problems in Interpreting - $\mathbf{3} \mathbf{h r s}$.
Techniques of interpretation including consecutive and simultaneous translation. Prerequisite: 72:108 or comparable translation skills.
72:225. Problems in Translation - 3 hrs.
Techniques of translation with journalistic and technical emphases.
72:226. French Graduate Summer Sympostum: (Topic) - 2-6 hrs.
An intensive summer course designed to complement courses offered during the fall and spring semesters. A specific topic and number of credit hours will be indicated in the Schedule of Classes for each session offered. May be repeated, except where title is identical. Prerequisite: 72:101 or equivalent.

## 72:270. French Literature in Review - 3 hrs.

Chronological review of major periods, works, and writers of French literature through reading and discussion. Focus on the development of each literary genre. Primarily for students planning to take M.A. comprehensives in French. Prerequisite: graduate standing or approval of instructor.
72:281. Seminar - 2 hrs.
Various topics will be offered such as Medieval Literature, 16 th Century Literature, 19th Century, Prose, Contemporary Novel. Specific area to be announced in the Schedule of Classes for current semester. May be taken more than once provided it is on a different topic.

## 74 German

## (See page 89 for programs in German.)

74:001. Elementury German I-5 hrs.
For beginners. Not recommended for students who have had two or more years of German in high school or the equivalent.
74:002. Elementary German II - $\mathbf{5}$ hrs.
Continuation of 74:001. Not recommended for students who have had three or more years of German in high school or the equivalent. Prerequisite: 74:001 or equivalent.
74:011. Intermediate German - 5 hrs.
Provides thorough review of essential German grammax, enlarges vocabulary; and augments basic reading, writing, and speaking skills. Prerequisite: 74:002 or equivalent.
74:052. Composition - 2-3 hrs.
Prerequisite: 74:011 or equivalent.
74:062. Conversation - 2-3 hrs.
Prerequisite: 74:011 or equivalent.
74:070. Perspectives on Modern Germany and Austria - 3 hrs . Introduction to contemporary German (FRG/GDR) and Austrian culture for the intermediate learner of German. Includes readings on current issues and written, oral, and aural exercises. Prerequisites: 74:052 and 74:062; or equivalent.
74:071. Introduction to German Literature - $\mathbf{3} \mathbf{h r s}$.
Selected major works of representative German authors. Application of language skills to basic literary analysis. Prerequisites: 74:052; 74:062; or equivaient.
74:090. Teaching German in the Elementiry Schools - 1 hx
Techniques and practice in teaching German at the elementary school level. Students will teach German in the local schools for approximately one hour per week and will meet with the course instructor on a regular basis. May be repeated twice for credit. Registration requires approval of instructor.
74:091. Blingual Pre-Practicum - 1-6 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 tilevel students. Only 3 credit hours may be applied to a major or minor in Gerr., Offered only on a credit/no credit basis. Prerequisite: consent of instructor. Mand repeated, but not to exceed 6 hours.
74:101(g). Advanced Composition - 3 hrs.
Analysis of the major morphological and syntactical structures of the German 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. Prerequisite or corequisite: 74:071 or equivalent. May be repeated once for credit with approval of instructor.
74:102(g). Advanced Composition and Gnmmar Review - 3 hrs. Improvement of writing skills through composition, in-class grammar review and individual tutorial sessions. Prerequisite or corequisite: 74:101 or consent id instructor.
74:103(g). Advanced Conversation - 4 hrs .
Development of oral fluency through systematically guided conversations on ccvilization topics and free conversation on topics of current interest. Structur morphological and phonetic exercises designed to meet the needs of the indiv, al participant. Corequisite: 74:101 or equivalent.
74:105(g). Stytistics - 3 hrs .
An introduction to stylistics analysis. Development of style in composition through study of excerpts from contemporary German works and litercis translations into German. Prerequisite: 74:052 or equivalent; junior standing of consent of instructor.
74:107(g). Introduction to Interpreting - 3 hrs .
An introduction to consecutive and simultaneous translation. May be repeated once for credit. Prerequisite: 74:103 or comparable fluency in German.
74:114(8). German Lyric Poetry - 3 hrs.
Selections from major periods up to the present. Prerequisite or corequisite 74:101 or equivalent.
74:116(g). Twentieth Century Prose Fiction - 3 hrs . Prerequisite or corequisite: 74:101 or equivalent.

74:117(s). 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.
74:120. German Ctvilization for Business Students - 3 hrs .
Provides an introduction to the civilization, geography, politics and economics of the German-speaking countries. Emphasis is placed on acquainting the business student with the customs and thoughts of these countries and their peoples. Taught in English. Does not count toward a major in German.
74:123(g). Civllization of German-Spealing Countries - 3 hrs .
Advanced-level study of the geography, history and culture of German-speaking countries. Prerequisite or corequisite: 74:101 or equivalent.
74:126. German Summer Sympostum: (Toplc) - 2-6 hrs.
An intensive summer course designed to complement courses offered during the fall and spring semesters. A specific topic and number of credit hours will be indicated in the Schedule of Classes for each session offered. May be repeated, except where title is identical. Prerequisite: 74:101 or equivalent.
74:127(g). German Classicism - 3 hrs.
Prerequisite or corequisite: 74:101 or equivalent.

## 74:128(g). Literature to Enlightenment - 3 hrs .

German literature from the Beginnings to Enlightenment. Prerequisite or corequisite: 74:101 or equivalent.

## 74:143(g). Nineteenth Century Literature - 3 hrs .

Representative works from the Romantic Period to Naturalism. Prerequisite or corequisite: 74:101 or equivalent.
74:147(g). Masterpieces of the Modern German Stage - 3 hrs.
Prerequisite or corequisite: 74:101 or equivalent.
74:150(g). Contemporny Germany and Austria - 3 hrs.
An in-depth analysis of the political and social developments and cultural trends of postwar Germany (FRG/GDR) and Austria. Prerequisite or corequisite: 74:101 or equivalent.
74:160(d). History of the German Language - 3 hrs .
An introduction to the historical development of German. Prerequisite or corequisite: 74:101 or equivalent.
74:161. Problems in German Pronunciation - 1-2 hrs.
Practice in spoken German for non-native speakers of German. Prerequisites: 74:052 and 74:062; 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.
74:185(g). Introduction to Tinnslation - 3 hrs .
An introduction to journalistic and technical translation using varied textual materials (public media, scholarly and professional texts), from English to German and German to English. May be repeated once for credit. Prerequisite: 74:101 or equivalent.
74:191. Bilingual Practicum - $1-3 \mathrm{hrs}$.
Participation in lower-level class activities to acquire first-hand knowledge of methodology involved. Participants meet on regular basis with instructor to discuss, in German, their experiences; reinforces and expands conversational command of the language. May be repeated, but not to exceed 3 hours. Prerequisite: consent of instructor.
74:201. Composition and Stylistics - 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 - 3 hrs .
Diachronic and synchronic description of Modern High German phonology, morphology, and syntax.

## 74:220. Problems in Interpreting - 3 hrs.

Techniques of interpretation including consecutive and simultaneous translation. Prerequisite: 74:107 or comparable translation skills.
74:225. Problems in Translation - 3 hrs.
Techniques of translation with joumalistic and technical emphases.

74:226. German Graduate Summer Sympostum: (Topic) - 2-6 hrs.
An intensive summer course designed to complement courses offered during the fall and spring semesters. A specific topic and number of credit hours will be indicated in the Schedule of Classes for each session offered. May be repeated, except where title is identical. Prerequisite: 74:101 or equivalent.
74:250. 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.
74:280. Seminar - 3 hrs.
Various topics will be offered such as Baroque Poetry, Classical Drama, Contemporary Prose Fiction, 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.

## 77 Russian

(See page 89 for programs in Russian.)
77:001. Elementary Russian I - 5 hrs .
For beginners.
77:002. Elementary Russian II - 5 hrs. Prerequisite: 77:001 or equivalent.
77:011. Intermediate Russian - $\mathbf{4 - 5} \mathrm{hrs}$.
Progressive development of writing skills through a sequence of exercises on topics related to Russian civilization, with a review of basic Russian language structure. Prerequisite: 77:002 or equivalent.
77:052. Composition - 2 hrs.
Continuation of 77:011, leading to free composition. Prerequisite: 77:011 or equivalent; corequisite: 77:062 or other intermediate course with approval of department head.
77:062. Conversation - 3 hrs .
Like 77:011, with a wider range of subjects, vocabulary and structures. Prerequisite: 77:011 or equivalent; corequisite: 77:052 or other intermediate course with approval of department head.
77:090 Teaching Russian in the Elementary School - 1 hr
Techniques and practice in teaching Russian; includes weekly training experience in the local schools plus class sessions. May be repeated twice for credit. Prerequisite: consent of instructor:
77:091. Blingual Pre-Practicum 1-6 hrs.
For second- and third-level student. Work with first-level classes which enables student to reinforce basic language skills through direct participation with firstlevel students. Prerequisite: consent of instructor. May be repeated, but not to exceed 6 hours. Only 3 credit hours can be applied to a minor in Russian.
77:101(d). 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.
77:102(8). Introduction to Russian Literature - 3 hrs.
Selected major works of representative Russian authors from the beginning to the present, 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.
77:131(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. Prerequisite: junior standing or consent of instructor.
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. Prerequisite: junior standing or consent of instructor.

77:13 (g). Contemponry 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. Prerequisite: junior standing or consent of instructor
77:141(g). Soviet Civiltzation - 3 hrs .
The culture of the Soviet Union as shaped by its geography, history and prehistory, and as revealed in its arts, sports, customs, traditions and economic, social and political institutions. Prerequisite: junior standing or consent of instructor.

## 78 Spanish

(See page 90 for programs in Spanish.)
78:001. Elementary Spanish I-5 hrs.
For beginners. Not recommended for students who have had two or more years of Spanish in high school or the equivalent.
78:002. Elementray Spanish II - $\mathbf{5}$ hrs.
Continuation of 78:001. Not recommended for students who have had three or more years of Spanish in high school or the equivalent. Prerequisite: 78:001 or the equivalent.

## 78:051. Composition I - $2-3 \mathrm{hrs}$.

Progressive development of writing skill through a sequence of exercises on topics related to Hispanic civilization, with a review of basic structure. Prerequisite: 78:002 or equivalent; corequisite: 78:061 or other intermediate course with approval of department head.
78:052. Composition II -2.3 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. Converation I - 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. Prerequisite: 78:002 or equivalent; corequisite: 78:051 or other intermediate course with approval of department head.
78:062. Comersation II - 2-3 hrs.
Continuation of 78:061, with wider range of subjects, vocabulary and structures. Prerequisite: 78:061 or equivalent; corequisite: 78:052 or other intermediate course with approval of department head.
78:071. Introduction to Hispanic Literature (Prose) - 3 hrs.
Selected major works of representative Hispanic authors. Application of language skills to basic literary analysis; includes related elements of Hispanic arts and customs. Prerequisites: 78:052; 78:062; or equivalent.
78:072. Introduction to Hispanic Literature (Drama and Poetry) - $\mathbf{3}$ hrs. Selected major works of representative Hispanic authors. Application of language skills to basic literary analysis; includes related elements of Hispanic arts and customs. Prerequisites: 78:052; 78:062; or equivalent.
78:090. Teaching Spanish in the Elementary School - 1 hr
Techniques and practice in teaching Spanish at elementary school level; includes weekly teaching experience in local school, plus class sessions. May be repeated twice for credit. Prerequisite: consent of instructor.
78:091. Blingual Pre-Practicum - 1.6 hrs .
For second- and third-level students. Work with first-level classes which enables student to reinforce basic language skills through direct participation with firstlevel students. Offered only on a credit/no credit basis. Prerequisite: consent of instructor May be repeated, but not to exceed 6 hours. Only 3 credit hours may be applied to a major or minor in Spanish.
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: 78:052; 78:062; or equivalent.
78:102(g). Commercial Spanish - 3 hrs.
Vocabulary and format for written correspondence in Spanish with emphasis on commercial vocabulary and idioms. Prerequisite: 78:052 or equivalent.

78:103(8). Advanced Conversation - 4 hrs .
Development of oral fluency through systematically guided conversations on civilization topics and free conversation on topics of current interest. Structurs morphological and phonetic exercises designed to meet the needs of the indivit al participant. Corequisite: 78:101 or equivalent.
78:105(g). Stytistics - 3 hrs .
An introduction to stylistic analysis. Development of style in composition through study of excerpts from the contemporary Spanish works and litermy translation into Spanish. Prerequisite or corequisites: 78:071 or 78:072; 78:101 or equivalents.
78:107(g). Introduction to Interpreting - 3 hrs .
An introduction to consecutive and simultaneous translation. May be repeated once for credit. Prerequisite: 78:103 or comparable fluency in Spanish.
78:112(g). Lath American Literature - 3 hrs .
Trends in Latin American Literature and representative authors. Prerequisitere 78:071 or 78:072; 78:101; or equivalents.
78:118(g). Contemporny Spenish Literature - $\mathbf{3}$ hrs.
Peninsular novel, essay and drama since the Generation of '98. Prerequisiteme 78:071 or 78:072; 78:101; or equivalents.
78:120. Ibero-American Civllization for Business Students - $\mathbf{3}$ hrs.
An introduction to the civilization, geography, politics and economics of the Portuguese- Spanish-speaking countries. Thught in English. Does not count toward a major or minor in Spanish.

## 78:121(g). Spanich Media - 3 hrs.

Provides opportunity to reinforce and expand basic knowledge of the language through reading, writing, and discussing contemporary and realistic issues usiz Spanish mass media (e.g., newspapers, magazines, radio, television, and filmi May be repeated once for credit. Prerequisite: 78:101 or equivalent.
78:123(g). Spaniah Cwillization - 3 hrs.
The Spanish cultural heritage as shaped by its geography and history, and as revealed in its arts, sports, customs, traditions and economic, educational, social and political institutions. Prerequisite or corequisite: 78:101 or equivalent.
78:125. Modern Mexico - 3 hrs.
A study of the geographic, socio-economic, historico-political aspects of conter porary Mexico as reflected in its art, folklore, and culture.
78:126. Spanish Summer Sympositum: (Tople) - 2-6 hrs.
An intensive summer course designed to complement courses offered during ti, fall and spring semesters. A specific topic and number of credit hours will ${ }^{2}$ indicated in the Schedule of Classes for each session offered. May be repeated, except where title is identical. Prerequisite: 78:101 or equivalent.
78:130(g). Golden Age Literature - 3 hrs .
Outstanding literary works of this period, including prose, drama, and poetry. Prerequisite: 78:071 or 78:072; 78:101; or equivalents.
78:132(g). Golden Age Drama and Lyric - 3 hrs.
Study of the theatre and poetry of the Spanish Renaissance and Baroque eras. Intensive reading of selected comedies of Lope de Vega, Tirso de Molina, and Calderón, and the poetry of Garcilaso de la Vega, Göngora, Quevedo, Fray Luis de León, and San Juan de la Cruz. Prerequistes: 78:071 or 78:072; 78:101; or equivalents.
78:134(g). Nineteenth Century Spanish Literature - 3 hrs.
Study of Romanticism, Realism, and Naturalism. Prerequisites: 78:071 or 78:072; 78:101; or equivalents.
78:139(6). Thentre - 3 hrs.
Peninsular and Latin American theatre from its origin to the present. Prerequisites: 78:071 or 78:072; 78:101; or equivalents.
78:140(8). Lathn American Civilization - 3 hrs .
The culture of Latin America as shaped by its geography, history, and pre-history, and as revealed in its arts, sports, customs, traditions and economic, social and political institutions. Prerequisite or corequisite: 78:101 or equivalent.
78:142(g). The Lath American Novel - 3 hrs.
The twentieth century will be stressed. Prerequisites: 78:071 or 78:072; 78:101 or equivalents.
78:144(g). Hispanic Poetry - 3 hrs.
Modernism and Post-Modernism will be stressed. Prerequisites: 78:071 or 78:072; 78:101; or equivalents.

78:150(d). Witten Communication - 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(s). Advanced Oral Communication - 3 hrs .
Topics of Spanish daily life; emphasis on idioms typical of that linguistic 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). Contemporry Spanish Culture - 3-5 hrs.
Contemporary Spanish culture as it reflects and relates to its history and prehistory as well as to current environment; emphasis on literature, architecture, painting, sculpture, and folk music. Offered only in conjunction with the Spanish institutes abroad. May be repeated but not to exceed 5 hours.
78:161(s). Problems tis Spanish Pronunciation - 2 hrs.
Correction of and practice in producing Spanish phonemes to minimize foreign accent. Prerequisites: 78:052; 78:062; or equivalent.
78:180(1). Applied Linguistics: Spenteh - 3 hrs.
Basic linguistic concepts applied to learning the Spanish language. Prerequisites: 78:071 or 78:072; 78:101; or equivalents.

## 78:185(1). Introduction to Translation - 3 hrs.

An introduction to journalistic and technical translation using varied textual materials (public media, scholarly, and professional texts), from English to Spanish and Spanish to English. May be repeated once for credit. Prerequisite: 78:101 or other advanced composition course in Spanish.
78:191. Bilingual Procticum - $1-3 \mathrm{hrs}$.
Participation in lower-level class activities to acquire firsthand knowledge of methodology involved. Participants will also meet on regular basis with instructor to discuss, in Spanish, their experiences; reinforces and expands comversational command of the language. Prerequisite: consent of instructor. May be repeated, but not to exceed 3 hours.
78:195(g). Psycholingulatics: 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 leam to deal more effectively with cross-cultural situations reflected in the language spoken by a given culture. Prerequisite or corequisite: 78:101.
78:201. Spanish Litenture in Review - 3 hrs.
Major periods of Spanish literature, literary genres and techniques using intensive readings, lectures, and student reports. Primarily for students planning to take the MA. Spanish comprehensives.
78:220. Problems to Interpreting - $\mathbf{3}$ hrs.
Techniques of interpretation including consecutive and simultaneous translation. Prerequisite: 78:107 or comparable translation skills.
78:225. Problems tn Translation - 3 hrs.
Techniques of translation with journalistic and technical emphases. Prerequisite: 78:185 or comparable translation skills.
78:226. Spanish Greduate Summer Sympostum: (Topic) - 2-6 hrs.
An intensive summer course designed to complement courses offered during the fall and spring semesters. A specific topic and number of credit hours will be indicated in the Schedule of Classes for each session offered. May be repeated, except where title is identical. Prerequisite: 78:101 or equivalent.
78:231. Cervantes - 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 - 3 hrs .
Old Castile - exploration of the essence of Castilian culture which forms the basis for the contemporary civilization of all Spanish-speaking countries. Offered 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 be announced on the Schedule of Classes for current semester. May be repeated except when topic is identical.

## 79 Portuguese

79:001. Elementary Portuguese 1 - 5 hrs. For beginners.
79:002. Elementry Portuguese II - $\mathbf{5}$ hrs.
Continuation of 79:001. Prerequisite: 79:001.
79:051. Composition I - 2-3 hrs.
Progressive development of writing skills through a sequence of exercises on topics related to Portuguese, Brazilian and Lusophone African civilization, with a review of basic structure. Prerequisite: 79:002 or equivalent; corequisite: 79:061 or other intermediate course with approval of department head.
79:052. Composition II - 2-3 hrs.
Continuation of 79:051, leading to free composition. Prerequisite: 79:051 or equivalent; corequisite: 79:062 or other intermediate course with approval of department head.

## 79:061. Conversation I- $2-3 \mathrm{hrs}$.

Develops oral proficiency through pattern practice, systematically-guided conversations on civilization topics using structures reviewed in the corresponding composition course and free comversation on subjects of current interest. Prerequisite: 79:002 or equivalent; corequisite: 79:051 or other intermediate course with approval of department head.
79:062. Conversation II - 2-3 hrs.
Continuation of 79:061, with a wider range of subjects, vocabulary and structures. Prerequisites: 79:061 or equivalent; corequisite: 79:052 or other intermediate course with approval of department head.
79:071. Introduction to Portuguese Language Literatures - $\mathbf{3} \mathbf{h r s}$.
Selected major and representative works of authors from Portuggal, Brazil, and Lusophone Africa. Application of language skills to basic literary texts; includes related cultural elements. Prerequisite: 79:052 and 79:062 or equivalents.
79:091. Blingual Pre-Practicum - 1-6 hrs.
For second- and third-level students. Work with first-level classes which enables student to reinforce basic language skills through direct participation with firstlevel students. May be repeated, but not to exceed 6 hours. Prerequisite: consent of instructor.
79:101(1). Advanced Composition - 2-3 hrs.
Analysis of the major morphological and syntactical structures of the Portuguese 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. During academic year, undergraduates earn 3 credits, and graduates earn 2 credits. Prerequisites: 79:052 and 79:062 or equivalents; junior standing or consent of instructor.
79:118(). Topics and Figures in Luso-Bravilian Literature - 3 hrs . Intensive readings analyzed of major authors or literary movements of Portugal and Brazil. May be repeated except when topic is identical. Prerequisites: 79:071 and 79:101 or equivalents; junior standing or consent of instructor.
79:123(s). Cwilization of the Portuguese-Spealing World - 2-3 hrs.
Culture, history and geography of Portugal, Braxil, Lusophone Africa, and other Portuguese-speaking communities. During academic year, undergraduates earn 3 credits, and graduates earn 2 credits. Prerequisite or corequisite: 79:101 or equivalent; junior standing or consent of instructor.

## 79:191. Bllingual Practicum - 1-3 hrs.

Participation in lower-level class activities to acquire first-hand knowledge of methodology involved. Participants meet regularly with instructor to discuss, in Portuguese, their experiences; reinforces and expands conversational command of the language. May be repeated, but not to exceed 3 hours. Prerequisite: consent of instructor.

## 80 Mathematics

80:002. Elementary Algebra - 0 hrs.
First and second degree equations, operations with polynomials, exponents and radicals. Designed for students who do not possess sufficient mathematics background to do college work. Successful completion will satisfy the university's high school mathematics requirement. Course meeting schedule will be the same as that of a three credit-hour course.
80:020. Survey of Mathematical Ideas - 3 hrs .
The language and ideas of mathematics.

80:030. Mathematics for Elementary Teachers 1-3 hrs.
Sets, relations, numeration systems, number theory and models for problemsolving. Extension of number concepts through a study of whole, integer, rational and real number systems as they relate to the K-8 mathematics curriculum.
80:040. Basic Colleginte Mathematics - 4 hrs.
Fundamental mathematical concepts; functions and graphs, solutions of equations; elementary trigonometry; systems of equations and inequalities; matrices and determinants. Applications.
80:046. Elementary Anslusts - 4 hrs.
Pre-calculus mathematics. Equations and inequalities. Logarithms, exponential and circular functions. Analytic trigonometry, analytic geometry, mathematical induction. Applications.

## 80:048. Condensed Calculus - 4 hrs .

Survey of analytic geometry and elementary calculus with emphasis on applications. May not be applied to Mathematics major or minor. Prerequisite: 80:040 or equivalent.

## 80:050. Matrices with Applications - 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.
80:060. Calculus I - 4 hrs.
The derivatives and integrals of elementary functions and their applications. Prerequisite: 80:046.
80:061. Calculus II - 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.
80:072. Introduction to Statistical Methods - 3 hrs.
Descriptive statistics including correlation and curve fitting. Intuitive treatment of probability and inferential statistics including estimations and hypothesis testing. Students with credit in 80:172 should not enroll in 80:072.
80:074. Discrete Mathematics - 4 hrs .
Introduction to mathematical reasoning, sets, relations and functions with applications in computer science. Prerequisites: 81:070; 80:050 or 80:060.
80:080. Mnthematics of Finance - 2 hrs .
Interest, annuities, and life insurance. Prerequisite: $80: 040$ or consent of instructor.
80:109(g). Readings in Mathematicul Literature - 2 hrs.
May be repeated for credit. Prerequisite: departmental approval.
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 involwing calculus.
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. Prerequisites: 80:030 and junior standing or departmental approval. No credit for a student who has credit in 80:046.
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) foundations and other geometries. Prerequisites: 80:030 and junior standing or departmental approval.
80:113(g). Topics in Mathematics - 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. Prerequisites: 80:111 and 80:112; junior standing or departmental approval.

80:120(8). Elementry Game Theory - 3 hrs .
Zero and non-zero sum games. Games with and without saddle points. Strategiea, linear programming, games with complete and incomplete information. Particu lar interest to students in business and social science. Prerequisites: 80:040; junior standing or departmental consent.
80:131. Mathematics for Elementary Teachers II - 3 hrs.
Probability, statistics, non-metric geometry, and measurement, including the metric system, as they relate to the K-8 mathematics curriculum. Prerequisite 80:030.
80:134. Teaching of Mathematics in the Elementary School - 2 hrs.
Explores relationship between the psychology of leaming and child development in the teaching of mathematics at the elementary school level; includes teaching strategies and management models. Prerequisites: $80: 030 ; 80: 112$; or $80: 131$.
80:136(g). Metric System and Measurement - 2 hrs .
Basic ideas of measurement (e.g., meaning, standard units, and errors). Experiments for experiences with metric units for length, area, volume, mass and temperature. Simple conversion techniques between and within systems. This course is available only through correspondence. Prerequisite: junior standing om departmental approval.
80:140(g). Intermedinte Mathematical Amalysis I - 3 hrs.
Algebraic and topological structure of the reals. Limits and continuity. Theory of differentiability of functions of a single real variable. Prerequisite: 80:062 or 80:063.
80:141(8). Intermediate Mathematical Anslysis II - 3 hrs.
Riemann integration. Sequences and series of functions. Introduction to Lebesgue integration. Prerequisite: 80:140.
80:144(8). 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 triples and transfinite numbers. Prerequisite: 80:046 or 80:111; junior standing or departmental approval.
$80: 147$ (g). Advanced Calculus 1 - 3 hrs .
Series and sequences of functions. Theory and application of multivariable functions. Emphasis on applications. Prerequisite: 80:062 or 80:063.
80:148(g). Advanced Calculus II - 3 hrs .
Continuation of work with multivariable functions. Special functions, calculus of variations. Fourier series and transforms. Prerequisite: 80:147.
80:149(8). Differenthl Equations - 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.
80:150(s). Partial Differential Equations - 3 hrs.
A study of applied partial differential equations using heat, wave and potential equations as a basis; Fourier Series and integrals; Laplace transformations. Prerequisite: 80:149.
80:152(g). Introduction to Probability - 3 hrs.
Axioms of probability, sample spaces having equally likely outcomes, conditional probability and independence, random variables, expectation, moment generating functions, jointly distributed random variables, weak law of large numbere, central limit theorem. Prerequisite: 80:161.
80:154(g). Introduction to Stochastic Processes - 3 hrs .
Elements of stochastic processes. Markov chains, random walk, applications. Prerequisite: 80:152.
80:155(g). Elementary Differential Geometry - 3 hrs.
The analytic study of curves and surfaces in three-dimensional Euclidean space. Prerequisite: 80:062.
80:156(g). Introduction to Complex Analysis - 3 hrs.
Differentiation and integration of functions of a single complex variable. Taylor and Laurent expansions. Conformal mapping. Prerequisite: 80:062.
80:160(g). Modern Alfabra 1 - 3 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 I - 3 hrs.
Vector spaces, systems of linear equations, linear transformations, determinants. Prerequisite: $80: 160$ or consent of department.

80:162(8). Modern Algebrn II - 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(g). Lattices and Boolean Algebra - 3 hrs .
Boolean algebras and applications to logic, number theory and electrical networks. Representation theorems for finite and infinite Boolean algebras. Introduction to lattice theory and its relations to logic and Boolean algebra. Prerequisite: 80:169.
80:165(g). Introduction to Modern Geometries - 4 hrs.
Foundations of geometry; basic concepts of Euclidean and non-Euclidean geometries. Prerequisites: 80:046; junior standing or departmental approval.
80:166(8). Geometric Converity - 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.
80:167(g). Topolofy I - 3 hrs .
An introductory study of metric spaces, completeness, topological spaces, continuous functions, compactness, connectedness, separability, product and quotient spaces. Prerequisite: 80:061.
80:168(g). Topoloy II - 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. Prerequisites: 80:160 and 80:167.
80:169(8). Mathematical Logic I - 3 hrs .
An introduction to the semantics and syntax of the propositional and predicate calculus. Applications to electrical networks and the analysis of formal mathematical theories. Prerequisites: 80:060; junior standing or departmental approval.
80:172(d). Statistical Methods -3 hrs .
Descriptive statistics including graphical representation, central tendency and variation, correlation and regression. Elementary probability. Problems of estimation and hypothesis testing from an intuitive approach. Use of statistical packages such as SAS or SPSS. Students with credit in 80:072 or 80:174 may not enroll in $80: 172$. Prerequisite: junior standing or departmental approval.
80:174(g). Mathematical Statistics $1-3$ hrs.
Continuous random variables, moment generating functions, central limit theorem, sampling distributions; testing hypotheses and estimation. Prerequisites: 80:062 and 80:152.
80:175(g). Mathematical Statistics II - 3 hrs.
Continuation of $80: 174$. Small sample theory, simple models in analysis of variance. Prerequisite: 80:174.
80:176(g). Introduction to Numerical Analysis - 3 hrs.
An introduction to mathematical methods applicable to the digital computer including finite differences, numerical integration and differentiation, solution of linear and nonlinear equations, and solutions of ordinany differential equations with initial conditions. The writing and execution of programs involving these methods. Prerequisites: 80:061 and 81:070.
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, non-linear programming, integer programming. Prerequisites: 80:070; 80:050; junior standing or departmental approval.
80:180(g). History of Mathematics - 3 hrs.
Survey of mathematical activities of mankind, the motives and the influences affecting the development of mathematics. Prerequisites: 80:046; junior standing or departmental approval.

## 80:181(g). Philosephy of Mathematics - 3 hrs.

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; junior standing or departmental approval.
80:182(8). Introduction to Set Theory - 3 hrs .
The axioms of set theory. Relations and functions. Equivalence and ordering relations, ordinal numbers and transfinite induction. Ordinal arithmetic. Zorns lemma, well-ordering and the axiom of choice. Cardinal numbers and the CantorBernstein theorem. Prerequisite: 80:160 or $80: 165$ or $80: 169$.

80:183(g). Mathematical Logic II - 3 hrs .
Semantics of the predicate calculus. Godels completeness theorem for first order theories. Completeness, categoricity and decidability. Some decidable mathematical theories and the method of elimination of quantifiers. Prerequisite: 80:169.
80:184(g). Introduction to Automata Theory - 3 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. Prerequisites: either 81:070 or 80:169; and 80:061 or consent of instructor.
80:187(g). Formal Languages - 3 hrs.
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.
80:189(g). Geometric Transformations - 3 hrs .
Rigid and similarity transformations in the Euclidean plane and Euclidean space. Groups, subgroups and normal subgroups of transformations, Symmetry groups, the Polya-Burnside theorems 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; soles of mathematics content and learning psycholog's in the secondary teaching situation. Prerequisites: 20:018; 20:040; 25:050; and 80:060.
80:191(g). Contemporary Mathematics Curricula - 2 hrs.
Study and evaluation of current mathematics ( $\mathrm{K}-12$ ) projects, manipulative materials, textbooks, games, individualized programs, computerized software, and commercial tests. Student may select any level ( $\mathrm{K}-12$ ) in which to evaluate materials and develop projects. Prerequisite: 80:190 or 80:134.
80:192. Diagnosis and Remediation in Mathematics - 2 hrs .
Diagnostic and remediation concepts and techniques in mathematics. May be repeated once for credit in a different area with departmental approval. Prerequisite: 80:134 or 80:190 or consent of instructor.

## 80:193(g). Linear Algebre II - 3 hrs .

Determinants, eigenvalues and eigenvectors, minimal polynominals, the CaylayHamilton theorem, canonical forms, inner product spaces, the Cram-Schmidt orthonormalization process. Prerequisiste: 80:161.
80:197. Systems of Geometry - 3 hrs .
Projective, affine, and elliptic geometries. Historical background, axiomatic development, and the establishment of consistency theorems through the construction of analytic and synthetic models within the real number system and other geometric systems. Prerequisite: 80:165.

## 80:198. Independent Study.

80:201. Mathematical Analysis I - 3 hrs.
The real numbers. Topology of Cartesian spaces. Continuous functions. Differentiation in Cartesian spaces. Prerequisite: 80:140 or consent of instructor.
80:202. Mathematical Anslysis II - 3 hrs .
Riemann-Stieltjes and Lebesgue Integral. Integration in Cartesian spaces. Improper and infinite integrals. Infinite series. Prerequisite: 80:201.
80:203. Complex Anslysis 1 - 3 hrs .
Analyticity. Differentiation and integration of functions of one complex variable. Power series, Laurent series. Calculus of residues. Prerequisites: 80:140; 80:156; or consent of instructor.
80:204. Complex Anslysis $11-3$ hrs.
Analytic continuation. Harmonic functions. Entire functions. Conformal mapping. Selected applications. Prerequisite: 80:203.
80:210. Theory of Numbers -3 hrs .
Basic interrelationships of the system of integers.
80:235. Problems in Teaching Elementary School Mathematics - 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.
$\mathbf{8 0 : 2 3 6}$. Advanced Foundations of Arithmetic - 3 hrs .
Formal study of the development and structure of arithmetic. Topics from statistics, probability and problem solving at levels appropriate to elementary and middle school mathematics also included.

80:245. Topies in Abstract Algebre - 3 hrs .
Topics from groups, rings and ideals, fields. Galois theory, introduction to homological algebra, infinite Abelian groups and linear algebras. Prerequisite: 80:160.
80:266. Topics in Geometry - 3 hrs.
Topics from: general theory of magnitudes; content and measure in geometry; the Banach-Tarski paradox; geometric dissection theory; packing and tiling; combinatorial geometry; geometric inequalities; descriptive geometry. Prerequisite: 80:165. May be repeated with consent of instructor.
80:273. Topics in Probability and Statistics - 3 hrs.
Topics chosen from correlation and regression analysis, analysis of variance and co-variance, non-parametric methods, order statistics. Prerequisite: consent of instructor:
80:280. Curricula in Elementary School Mathematics - 3 hrs.
Experimental and current curricula; purpose, organization and design considered with methods of implementing curricular change.
$80: 281$. Theories of Learning Elementry School Mathematics - 3 hrs . Exploration of findings of selected leaming theories as these apply to both content and pedagogy in the elementary mathematics program.
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. Prerequisite: departmental approval. May be repeated once for credit.
80:291. Problems in Teaching Hidh School Mathematics - 2 hrs.
Course content decided by participants and instructor. Both mathematics content and methodology of the senior high school considered. Prerequisite: departmental approval. May be repeated once for credit.
80:292. Teaching Students with Learning Problems in Mathematics $\mathbf{- 2}$ hrs. Identification, characteristics, and needs of students with learning problems together with coordinated work with appropriate students. Prerequisite: 8):134 or 80:190.
80:295. Teaching Gifted and Talented Students in Misthematics - 2 hrs.
Identification, characteristics, and needs of gifted and talented students in mathematics together with coordinated work with appropriate students. Prerequisite: 80:134 or 80:190.
80:299. Research.

## 81 Computer Science

81:025. The Computer in Soclety - 3 hrs .
Introduces basic computer concepts; surwey of available computer equipmentexamines current uses of computers in business, education, etc., and their futurt potential; and study of implications to society. Emphasis on hands-on computer experiences.
81:070. Introduction to Progrimming - 3 hrs.
An introduction to programming using a problem-oriented language such as FORTRAN or BASIC; some emphasis on style and program structure.
81:081. Computer Programming I - 3 hrs.
An introduction to algorithms and their implementation using Pascal. Emphasis on techniques of program design and style. Prerequisite: 81:070 or one year of high school programming or equivalent.

## 81:082 Computer Programming II - 3 hrs.

A continuation of Computer Programming I and an introduction to data and file structures. Continued emphasis on design and style with more complex Pascal programs. Prerequisite: 81:081.
81:102(g). Introduction to Computer Science - 3 hrs .
Study of algorithms as applied to various areas of computer science using advanced features of the FORTRAN and BASIC programming languages. Requires completion of a programming project related to student's major area. Open only to graduate students. Student may not receive credit for both 81:071 and 81:102. Prerequisite: 81:070 or 81:101.
81:110(g). 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: $81: 081$.

81:111(g). File Processing - 3 hrs .
Techniques for file creation, updating, accessing, and processing; COBOL used for exercises; includes study of report writer. Business applications stressed. Prerequisite: 81:110.
81:120. Assembly Language Programming - 3 hrs.
Introduction to basic computer structures, hardware, and machine language. Topics: internal representation of characters and numbers, conversion techniques, addressing concepts, subroutine linkages, macro-language, and IO operations. Prerequisite: 81:082.
81:130. Data and File Structures - 3 hrs .
Representation and organization of information by logical structures such a vectors, trees, strings and graphs; alternative forms of logical structures and the" realization as data structures in memory or secondary storase; and abstract drat types. Analysis of algorithms and programs for manipulating these structures. Prerequisites: 80:074; 81:082.
81:132(g). Manafement of Data - 3 hrs.
Study of methods for data management. Study of the three data models most widely used in database management systems: relational hierarchical, and network models. Prerequisites: $81: 111 ; 81: 130$.
81:135(g). Programming Languages - 3 hrs .
Study of the run-time behavior of programs, control structures, data types and structures, and primitive operations of programming languages. Several languages used to illustrate concepts. Prerequisite: 81:130.
81:140(g). Computer System Structures - 3 hrs .
Functions, issues, designs, implementations and uses of computer system elements; emphasis on understanding and use. Includes batch, multiprogramming, time sharing, and network systems; file handling and management information systems; process and storage management and handling. Prerequisites: $81: 120 ; 81: 130$.
81:145(g). Software Desiqn and Development - 3 hrs.
Strategies, methods, and tools for the design, development, implementation, testing and documentation of large programming projects. Case histories examined. Prerequisite: 81:135.
81:150(g). Project Management - 3 hrs.
Examination of problems of organizing, controlling, managing, and evaluatinga software project; also includes software metrics and human input. Prerequisiten 81:111 or 81:145 or consent of instructor.
81:155(g). Complier Desifn - 3 hrs .
Introduction to the analysis of programming languages and construction of translators. Prerequisite: 81:135.
81:160(s). Operating Systems - 3 hrs .
Design and implementation of operating systems in a microcomputer environment. Emphasis on I/O systems, communications, and information management. Prerequisite: 81:140.
81:178(g). Topics in Computer Science - 3 hrs.
Topics of immediate interest from general area of Computer Science; may include systems, data management, artificial intelligence, computer assisted instruction, programming languages. May be repeated once for credit on a different topic for a maximum of 6 hours. Prerequisite: consent of instructor.
81:179. Cooperative Education $-1-4 \mathrm{hrs}$.
Application of classroom leaming to field experience. Credit may not be applied ty] major or minor Available only on creditno-credit basis.
81:190. The Teaching of Secondary Computer Selence -3 hrs.
Secondary (7-12) computer science curricula; methods and research in the teaching and learning of computer science; role of the computer science teach in the schoois. Prerequisites: 20:018; 20:040; 25:050; and 81:135.
81:251. Semmar in History and Applications of Computers - 3 hrs.
Presentations by students and the instructor on diverse topics on both the history of computers and their applications. Prerequisite: departmental approval.
81:252. Computer Science Curriculum Development - 2 hrs.
Current and experimental curricula in secondary school computer science. Purpose, design and implementation of these curricula. Methods of implementing curricular change in secondary school computer science. Prerequisites: 20:214; 81:135.
81:253. Problems in Teaching Computer Sclence - 2 hrs.
Content to be determined by students and instructor. Both content and methods of secondary school computer science will be considered. Prerequisite: 81:135.

## 82 Science and Science Education

82:020. The Physical Sciences - 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.
82:031. Activity Based Science I (Physical Sciences) - 3 hrs.
An activity-based introduction to basic concepts and processes of several areas of science, particularly the physical sciences. Uses of classification systems and models stressed.
82:032. Activity Based Science II (Biologlcal Sciences) - 3 hrs.
Continuation of 82:031; Emphasis in biological sciences. Major theme: role of energy in individual organisms, in the atmosphere, and in ecological systems. Prerequisite: 82:031 or other course from the physical sciences.
82:113(g). Technlques for Science Teachers - $1-3 \mathrm{hrs}$.
Techniques applicable to more than one science area; may include photography for science teachers, current learning psychologies as applied to the sciences, or preservation and display of scientific specimens. Topic to be listed in Schedule of Classes. May be repeated for credit in a different topic. Application to major requires approval of student's adviser. Prerequisite: junior standing.
82:130(g). Experiences in Elementary School Sclence - 3 hrs .
For majors in elementary or middle schooljunior high education. Develops understanding of science as an investigative process. Teaches significant concepts of natural science through activities which demonstrate procedures and approaches appropriate for use with children at elementary and intermediate level. Problems of use in classroom discussed; some curriculum materials sunveyed. Prerequisite: junior standing.

## 82:132. Experience in Environmental Education - 3 hrs.

Current trends in interdisciplinary theory and content of the environmental education process; theory and practice with techniques, materials, and equipment of environmental education in the classroom and the out-of-doors. Development of outdoor laboratories on school grounds and in parks included. Discussion, lab., and field work, 4 periods.

## 82:175. The Nature of Sclence - 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.
82:189. Seminar in Environmental Problems - 1 hr
Current topics to be explored by student teams. Team examination of various facets of an issue, focusing upon development of a factual resume of natural, political, economic, and humanistic data which will be integrated for use in developing potential solutions. Will include value clarification activities.
82:190. Orientation to Science Tanchins - 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 they relate to developing instructional strategies. Required for certification to teach secondary school science; to precede student teaching. Discussion, 2 periods. Prerequisites: 20:017; 20:030; junior standing; a major or minor in a science area; or consent of instructor.
82:194(g). Current Curricula in Junior High Sclence - 2 hrs.
Discussion and laboratory experience in modem curricula; Intermediate Science Curriculum Study (ISCS), Introductory Physical Sciences (IPS), Earth Science Curriculum Project (ESCP), Individualized Science Instruction System (ISIS), plus other commercial curricula. Prerequisites: 82:190 or 20:040; 6 hours in science; or consent of instructor. Discussion, 1 period; lab., 2 periods.
82:195. Sclence Teaching Colloquium - 1 hs
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.
82:198. Independent Study.

82:200. History and Philosophy of Sclence - $\mathbf{2}$ hrs.
Survey of major developments of history of science in Western civilization. Study of the relationships between these developments and the history of philosophy.
82:213. Teaching-Learning Models in Sclence Education - 2 hrs.
In-depth examination of pedagogical models from hierarchy to inquiry as applicable to science education. The psychological basis for pedagogical models is a central focus of the course. The implication for science teaching and examples from science curricula are studied. Prerequisite: 20:040 or equivalent.
82:230. Environmental Education Program Development - 3 hrs.
Application of environmental/conservation education content and process to curriculum and program development. Students will formulate or revise programs for their own employment situations. Prerequisites: 84:103 or 84:104, and two years of experience as a teacher or in an occupation related to environmenta/ conservation education. To be offered during the summer at Iowa Teachers Conservation Camp.
82:270. Spechal Problems in Science Education - 1-6 hrs.
Problems selected according to needs of students. Prerequisite: approval of the chairperson of the Science Education Faculty.
82:290. Trends in Sclence Education - 2 hrs.
Using both manual and computer search techniques, current science education literature is sought and critiqued. Trends are established. The seminar format is utilized. Prerequisite: instructor's permission.
82:294. Developing Sclence Curricula - 2 hrs.
Course deals with design, redesign, and assessment of science curricula, K-12, within the context of the total school curriculum. Special attention is given to psychological and social influences affecting curriculum, both at present and in the past. Prerequisite: 82:190 or 21:101 or equivalent.
82:299. Research.

## 84 Biology

## 84:015. Laboratory in Life Science - 1 hr

The process of science is stressed through student activities involving basic life science concepts encompassing plants, animals, ecological interrelationships, respiration, photosynthesis, and human genetics. Lab., 2 periods. Prerequisite or corequisite: $84: 021$ or $84: 023$ or $84: 028$.
84:021. LIFE: Environmental Relationships - 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. Lecture/discussion, 3 periods. No credit on major or minor.
84:023. LIFE: Adaptation and Survival - 3 hrs .
Mechanisms by which organisms and populations, including man, have adapted to respective environments and how adaptive information is stored, transmitted, utilized and exchanged. Lecture/discussion, 3 periods. No credit on major or minor.
84:028. Biosphere: Life and Its Interrelationships - 3 hrs.
Basic concepts of biology including material structure, development, energy flow, and evolution of life; and unity and diversity of life and its interactions with the living and non-living world. No credit on major or minor or for students with post-high school courses in biology, botany, or zooloty. Lecture/discussion, 3 periods.
84:030. Introduction to Anatomy and Physioloty - 5 hrs.
Fundamentals of the anatomy and physiology of the human body. Prerequisite: first-year classification in the nursing program at Hawkeye Institute of Technology. Discussion, 3 periods; lab., 4 periods.
84:031. Anstomy and Physioloty 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 Physioloy 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. Princtples of Microbioloty - 3 hrs.
The basic concepts and practical applications of microbiology in medicine, immunology, sanitation and food preparation in daily life. Designed for students majoring in areas other than science. Sections may be offered exclusively for nurses in training. Discussion, 2 periods; lab., 2 periods.

## 84:051. General Bioloty I-4 hrs.

Study of organismic biology emphasizing evolutionary pattems and the diversity of organisms as well as the interdependency of structure and function in living systems. Discussion 3 periods; lab., 2 periods.

## 84:052. General Biology II - 4 hrs.

Study of cells, genetics and populations emphasizing the chemical basis for life, the flow of information and the interactions of populations in ecosystems. Discussion 3 periods; lab., 2 periods. Prerequisite: 84:051.

## 84:089. Seminar - 1 he

84:103(g). Conservation of Iowa Resources - 3 hrs .
Natural resources of lowa, 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: 84:052 and junior standing.
84:104(g). Iowa Conservation Problems I - 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 - 3 hrs.
Soil, water, and mineral resources. Field experience. Preparation of visual aids, demonstrations and projects. Offered only at Iowa Teachers Conservation Camp.
84:106. 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: 84:052.
84:108(g). Vertebrate Embryoloty - 4 hrs.
Development of vertebrate organism. Formation and development of germ cells; fertilization; growth and differentiation. Discussion, 2 periods; lab., 4 periods. Prerequisite: 84:106.
84:112(g). Invertebrate Zoolog - 4 hrs.
Anatomy and physiology of type forms of the invertebrate phyla. Discussion 2 periods; lab., 4 periods. Prerequisites: 84:052 and junior standing.
84:114. Animal Physioloty - 4 hrs .
Organ system functions in animals; physical and chemical basis for functions; comparison of organ system function especially in vertebrates. Discussion 3 periods; lab., 2 periods. Prerequisites: 84:052; either 86:050 or 86:120 and 86:121; one semester of physics recommended.
84:117(g). Endocrinolody - 3 hrs .
Hormonal control of various organ functions including cellular effects and biochemistry of endocrine organs. Graduate students must enroll in "Endocrinology Laboratony" Discussion, 3 periods. Prerequisites: 84:114 or 84:138; 84:128 or 86:050.
84:118(g). Endocrinology Leboratory - 1 hr
Experience in experimental endocrine surgery in small laboratory animals. Collection of experimental data and its analysis; 3 periods. Prerequisite or corequisite: 84:117.
84:120. Plant Morpholog - 4 hrs.
Structure and evolution of plant phyla with emphasis upon algae, fungi, mosses, and fems. Prerequisite: 84:052.
84:122. Plant Physioloty -4 hrs.
Functional aspects of plant processes related to composition, metabolism, transport mechanisms, growth and development. Discussion, 2 periods; lab., 5 periods. Prerequisites: 84:052; 86:048 or 86:070; 80:040 or equivalent.

## 84:124(g). Introduction to Mycolody - 4 hrs.

Biology of fungi including taxonomic groupings, evolutionary affinities, and roles in organic cycling and effects upon plants, animals, and man. Includes field collections and culture of fungi. Prerequisites: 84:052 and junior standing. Discussion, 2 periods; lab., 4 periods.
84:126(g). Topics in Plant Physiology - 3 hrs .
Detailed consideration of selected aspects of plant physiology, emphasizing cellular mechanisms. Topics may include plant water relations, cold and heat tolerance, mineral nutrition, radiation responses, stomatal physiology, photosynthesis, relations between water status and carbon assimilation. Lecture, 2 periods; lab/discussion, 2 periods. Prerequisite: 84:122.

84:128(g). Cell Biology - 3 hrs.
Fundamental physiological processes of cellular function with emphasis on metabolism, respiration, photosynthesis, and cellular membranes. Discussion, 2 periods; lab., 3 periods. Prerequisites: 84:052; either 86:050; or $86: 120$ and 86:121.
84:131(g). Animal Behavior - 4 hrs.
Psychological, physiological, sociological, and ethological approaches to behax ior; relationship between behavior and environment, and experimental variabity Discussion, 3 periods; lab., 3 periods. Prerequisites: 84:052 and junior standing,

## 84:132(g). Parasitology - 4 hrs.

Morphology, ecology, and life history of parasites important to man and other animals. Discussion, 2 periods; lab., 4 periods. Prerequisite: $84: 112$ or written consent of instructor.
84:135(g). Topics in Cell Bloloty - 2 hrs.
Organization and function of sub-cellular organelles and assemblies of eukarye cells. Prerequisite: 84:128 (may be taken concurrently). Discussion, 2 perio
84:138. Human Physiology -4 hrs .
Anatomy and functioning of organ systems of the human body. Prerequisite 84:052. Discussion, 2 periods; lab., 2 periods.
84:139. Human Orgen Systems' Internctions - 3 hrs.
This course focuses on functions of organ systems including their cellut molecular basis and emphasizes the interrelatedness of organ system functions, maintaining homeostasis of the organism. Pathological physiology of ore systems is included and is contrasted with the normal processes. Integrating processes and systems are emphasized. No credit for biology majors or minors. Prerequisites: 84:031 and 84:032 or equivalent.
84:140(g). Genetics - 4 hrs.
Analytical approach to classical, molecular and population genetics. Discussion, periods; lab., 2 periods. Prerequisites: 84:052; 86:050 or $86: 120$ and $86: 124$ ' 80:040 or equivalent.

## 84:142(g). Organic Evolution - 2 hrs.

Concepts and consequences. Mechanics of the evolution as evidenced by comparative anatomy, biochemistry, embryology, and the fossil record. Genetics of the evolutionary process. Speciation and origin of higher tara. Prerequisite: 84:140.
84:146(g). Developmental Genetics - 4 hrs.
Patterns and principles of animal development. Emphasis on current concepts? developmental genetics. Discussion and lab., two 3-hour periods. Prerequistit. 84:052 and junior standing.
84:151(g). General Microbioloty - 4 hrs.
Physiology, morphology, taxonomy, immunology, and pathogenicity of microby with applications to medicine, agriculture, sanitation, and industry. Discussion: periods; lab., 4 periods. Prerequisites: 84:052; 86:048 or 86:070; junior standis, or departmental approval.
84:157(g). Biostatics - 3 hrs .
Experience relating experimental design to appropriate quantitative data analysis and hypothesis interpretation. Parametric and non-parametric statistics will be discussed. Practical applications will include the use of computerized statistic packages. Discussion, 2 hours; lab., 2 hours. Prerequisites: 80:046 or equivaleri. junior level standing and two biology courses beyond the introductory sequence, or permission of the instructor.
84:160. Field Zooloty of Vertebrates - 4 hrs.
Identification and natural history of lowa vertebrates. Field trips emphasired Discussion, 2 periods; lab. and field work, 4 periods. Prerequisite: 84:052.
84:166(g). Plant Syatematics - 4 hrs.
Biology of angiosperms, including classification, evolution, population structures, and breeding systems. Discussion, 2 periods; lab. and field work, 4 periods. Prerequisites: 84:052 and junior standing.
84:168. Ecology - 3 hrs.
Relationship of organisms to their environment with emphasis upon the princtples of population, community and ecosystem structure and dynamics. Discussion, 2 periods; lab., 3 periods. Prerequisite: 84:052.
84:170. Entomology - 3 hrs.
Introduction to the biology of insects. Discussion, 2 periods; lab., 2 periods. Prerequisite: 84:052.

## 84:172(g). Plant Anatomy - $\mathbf{4}$ hrs.

Ontogeny, growth and differentiation of simple and complex tissues of root, sty. leaf, and reproductive organs of higher plant groups. Discussion, 2 periods; lab.,4 periods. Prerequisites: 84:052 and junior standing.

84:176(g). Community Ecology - 3 hrs.
Investigation of the origin, structure, function, dynamics, and evolution of communities with emphasis upon their floral components. Discussion, 2 periods; lab., 2 periods. Prerequisite: 84:168 or equivalent.
84:177(g). Population Ecolody - 3 hrs.
Covers the genetics, evolution, structure, and dynamics of populations and the interactions of populations. Emphasis will be given to animal population ecology. Lecture/discussion, 2 periods; lab., 2 periods. Prerequisite: $84: 168$ or equivalent.

## 84:180(g). Management of Recreational Land - 3 hrs .

Ecological principles applied to design, development and management of natural areas, parks, and wildlands. Discussion, 2 periods; lab., 2 periods. Prerequisites: 84:103 and 84:168.

## 84:182. Current Environmental Issues - 2 hrs.

Investigation and discussion of selected current environmental issues of national and local significance. The scientific and technological basis of each issue will be examined in its socio-economic context and projected to the future. Discussion, 2 periods. Prerequisite: 84:103 or written permission of instructor.
84:183(g). Topics in Molecular Biology - 1 hs
Current research information and techniques extending the molecular aspects of cellular, physiological and genetics courses. Topics such as genetic engineering, calcium metabolism, protein synthesis, nucleic acids, and molecular evolution will be offered. May be repeated on different topics for a maximum of 6 hours.
84:185. Readings in Biology - $1-3$ hrs.
Independent readings in biology from a selected list approved in advance. Maximum of 3 hrs. for biology major or minor. Prerequisite: departmental approval.

## 84:189. Seminar - 1 hr

84:190. Undergraduate Research in Bioloty - $1-3 \mathrm{hrs}$.
Research activities under direct supervision of Biology faculty members. Credit determined prior to registration based upon student proposal with adreement of faculty advisor. May be repeated once to a maximum of 4 hours credit. Prerequisites: 84:157 or equivalent; 9 hours of biology credit beyond the introductory sequence and approval of department head.

## 84:193(g). Current Curricula in Biology - 2 hrs.

Philosophy, methods, and materials of high school biology curricula and curriculum development. Examination and evaluation of current curricular materials for secondary biology and life science classes. Prerequisites: 82:190; 84:052 or written consent of instructor.

## 84:195. Internship/Field Experience - $\mathbf{1 - 8}$ hrs.

Supervised experience in approved work situation. Full-time for one-half semester or summer session, or one-half time for full semester will receive maximum credit. Offered only on creditno-credit basis; no credit allowed on major.
84:197. Undergraduate Practicum in Biology Teaching -1 hr
Practical experience in teaching. Participation in laboratory and instructional assistance under direct supervision of faculty member. May be repeated once for credit. Offered only on credit/no credit basis; no credit allowed on major. Prerequisite: departmental approval.

## 84:198. Independent Study.

84:202. Graduate Colloqium - 1 mr
Weekly presentation by a student, faculty member, or visitor on a biological topic. Shall be taken twice during initial two semesters for a maximum of two credits. Discussion, 1 period.

## 84:210. Biologlical Techniques - 3 hrs.

Biological techniques of the teacher of biology. Lab., 6 periods.
$\mathbf{8 4 : 2 2 0}$. 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. Prerequisite: 84:120.
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. Prerequisites: 84:168; 86:048 or 86:070.
84:230. Special Problems in Bioloty - 1-6 hrs.
Credit determined at registration. (Problems in biology other than those for theses or in regular curricularofferings.) Prerequisite: departmental approval; 84:292 recommended.

84:242. Advanced Physiology - 3 hrs.
Selected organ systems explored in detail with respect to their function; emphasis on current research information for the organ systems studied. Discussion, 3 periods. Prerequisites: 84:114 or $84: 138$; 84:128 or $86: 150 ; 86: 120,86: 121$; 88:054.
84:243. Advanced Physiology Laboratory - 1 hr
Experience with physiological recording and analysis of data gathered. Experiments directed toward understanding of factors that alter physiological responses and interpretation of those alterations as they relate to underlying causes and consequences for the organism. Corequisite: can only be taken concurrently with 84:242.

## 84:255. Physiological Ecology - 3 hrs.

Responses of higher organisms to the physical emvironment. Includes consideration of heat, water and carbon balances. Physiological mechanisms with an ecological emphasis, includes both natural and crop ecosystems. Discussion, 2 periods; lab., 2 periods. Prerequisites: 84:114 or 84:122; 84:168 recommended.

## 84:257. Biometry - 2 hrs.

Experience in relating experimental design to appropriate quantitative data analysis and hypothesis interpretation. Practical application to include use of BMDP computerized statistical package. Students will use their undergraduate experience in biology to design and analyze experiments. The course will culminate with each student preparing a proposed experimental design and data analysis suitable for completion as a thesis or research project. Discussion, 1 hour, lab., 2 hours. Prerequisites: bachelor's degree in biology; 84:157 (concurrent enrollment acceptable) or equivalent; or permission of instructor.
84:289. Seminar - 1 hr.
84:292. Research Methods in Biology - 2 hrs.
Development and formal preparation of a biological research proposal; emphasis upon experimental design, literature review, and manuscript style. Discussion, 3 periods.
84:297. Practicum.
84:299. Research.

## 86 Chemistry

86:020. Chemical Technolosy - 4 hrs.
Basic concepts of inorganic and organic chemistry and their applications to industrial processes. Emphasis on application of chemical principles in materials and energy production and use, and environmental problems. Discussion, 3 periods; lab., 2 periods. No credit for student with credit in any college chemistry course.
86:030. Contemporay Chemical Issues - 3 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. No credit for student with credit in any college chemistry course.
86:031. Socio-Economic Chemistry - 1 hrs
Chemical problems of current interest and concem affecting the individual and society (e.g., energy, pollution, food supply, drugs, etc.). Discussion, 1 period. Credit does not count on chemistry major or minor.
86:041. Introductory Physiolopical Chemistry - 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 nonmetallic elements and their compounds. Students with extensive background in high school chemistry and mathematics may enter 86:070 following departmental advisement. Discussion, 3 periods; lab., 3 periods. Prerequisite: 80:040 or equivalent.
86:048. General Chemistry II - 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.

## 86:050. Blo-Organic Chemistry - 4 hrs .

Theoretical and practical consideration of organic chemical principles important in biological systems. For students of biology and medically related fields. No credit for student with credit in $86: 123$. Discussion, 3 periods; lab., 3 periods. Prerequisite: 86:048 or 86:070.

## 86:061. Applied General Chemistry - 4 hrs.

Principles of chemistry as applied to the home and to allied health fields. For students in home economics and allied health programs. Discussion, 3 periods; lab., 3 periods. No credit for student with credit in 86:044.
86:063. Applied Organic and Biochemistry - 4 hrs.
For students in home economics and allied health programs. Discussion, 3 periods; lab., 3 periods. No credit for a student with credit in 86:120.
86:070. General Chemisty I-II - 5 hrs.
Accelerated course for well-prepared students. Content similar to 86:044 and 86:048 but covered in one semester. Completion satisfies General Chemistry requirement of any chemistry major Discussion, 4 periods; lab., 3 periods. Prerequisite: departmental approval required.
86:120. Organic Chemiatry I - 3 hrs.
Fundamentals of organic chemistry. For majors in the sciences and those preparing for medically related careers. Prerequisite: 86:048 or 86:070. Discussion, 3 periods.
86:121. 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.
86:123. Organic Chemistry II - 3 hrs.
Continutation of $86: 120$. Prerequisite: $86: 120$. Discussion, 3 periods.
86:125. Ortmic Chemistry Laborntory II - 2 hrs.
Continuation of 86:121. Preparation and functional group analysis. Prerequisites: 86:120; 86:121. Prerequisite or corequisite: 86:123.
86:132. Quantitative Analysis - 4 hrs.
Theory, technique, and calculations of volumetric and gravimetric analysis. Statistical treatment of data. Classical analytical procedures supplemented by instrumental techniques. Prerequisite: 86:048 or 86:070. Discussion, 2 periods; lab., 6 periods.
86:134(g). Instrumental Anslyyis I - 4 hrs .
Instrumental methods of analysis. Theory of instrumentation and practical experience in such areas as potentiometric titration, polarography, electroanalysis, spectrophotometry, and gas chromatography. Prerequisites: 86:050 or 86:120; 86:132; 88:052 or 88:056 or 88:131 or approval of instructor. Discussion, 2 periods; lab., 6 periods.
86:135(g). Instrumental Anslysis II - 4 hrs.
The application of physical chemical principles to theory and practice of instrumental methods of analysis such as spectrophotometric, electroanalytical, chromatographic, and computerized techniques. Prerequisites: 86:120; 86:132; 86:140. Prerequisite or corequisite: 86:141. Discussion, 2 periods; lab., 6 periods.
86:140(s). Physical Chemistry I - 3 hrs .
Application of the laws of physics to chemical phenomena. Prerequisites: 80:060, 88:056 or 88:131, or permission of the instructor, junior standing or deparmental approval. Discussion, 3 periods.
86:141(g). Physical Chemistry II - 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 Phyaical Chemistry - 3 hrs.
Physical aspects of chemistry for the needs of the high school chemistry teacher, and for students in the biological sciences. Prerequisite: 86:048 or 86:070; 80:046; junior standing or departmental approval. Recommended: 88:054. Discussion, 3 periods.

## 86:143(g). Physical Chemistry Laboratory - $1-3$ 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 - 3 hrs.
The structure of elements and their consequent physical and chemical properties and their relations to the periodic chart. Prerequisite: 86:120; junior standing or departmental approval. Discussion, 3 periods.

86:145(g). Inertanic Chemistry II - 3 hrs.
Application of physical chemical principles to the study of inorganic systems, Prerequisites: 86:120; $86: 140$. 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(s). Blochemiatry I - 4 hrs .
Chemistry of life processes with emphasis on metabolism. Prerequisite: 86:123. Discussion, 2 periods, lab., 6 periods.
86:151(g). Bhochemistry II - 4 hrs.
Chemistry of life processes based on physical chemical principles. Prerequian, 86:125; 86:140. Prerequisite or corequisite: $86: 134$ or $86: 135 ; 86: 141$. Discuss 2 periods; lab., 6 periods.
80:161(g). Organic Structure Analysis - 3 hrs.
Use of infrared and ultraviolet-visibie spectroscopy, proton and carbon magnetic resonance, mass spectrometry, and other physical and chemical methods for the assignment of structure to organic compounds. Prerequisites: 86:123; 86:140. Prerequisite or corequisite: 86:141. Discussion, 3 periods.
86:180. Undereraduate Research in Chemistry - $1-3 \mathrm{hr}$.
Credit determined at registration. May be repeated only once for credit. Prerec, site: 86:140 and approval of department head. Prerequisite or corequisite: $86: 1^{7}$
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. Prerequisite: 82:190.
86:220. Advanced Ortanic Chemistry - 3 hrs.
Product analysis, kinetics, and mechanism of organic reactions. Prerequisites: 86:123; 86:141. Discussion, 3 periods.
86:230. Coordination Chemistry - 3 hrs.
Lecture course on various aspects of coordination compounds. Prerequisite: 86:14]; $86: 144$ 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 Anslytical Chemistry - 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: $86: 134$ or equivalent; 86:140; and approval of department head.
86:292. Research Methods and Chemical Literature - $\mathbf{3} \mathrm{hrs}$.
Concepts and procedures for developing a chemical research problem; use and importance of the chemical literature.

## 87 Earth Science

87:010. Astronomy - 3 hrs.
Basic introduction to the universe; development of astronomy and its impact on humanity. The solar system and its motions; introduction to stars, galaxies, cosmology, and life in the universe. Prerequisite: high school algebra and geometry.

## 87:011. Astronomy Laboratory - 1 he

Students enrolling 87:010 may enroll in this laboratory. Involves fundamentals of observation, use of introductory equipment, use of aimanacs, atlases, and ephermerides. Some photography will be done. Prerequisite: consent of instructor and concurrent enrollment in 87:010.
87:021. Elements of Weather - $\mathbf{3} \mathrm{hrs}$.
Meteorological elements and their applications to the emvironment; interpretaltion of weather maps and weather data; forecasting and briefing on the daily weather Discussion, 3 periods.

87:031. Physten Geology-3 hrs.
Introduction to the 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. Geolon Preld Tipp - $1-4 \mathrm{hrs}$.
Geology and earth sciences field trip; to be preceded by seminars on the geology of the proposed study area. Prerequisites or corequisite: 87:031 or equivalent, and consent of instructor May be repeated for credit in a different geological area. Only 4 hours may be applied to the Earth Science minor.
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; preogression and evolution of life from Precambrian time to present time. Prerequisite: 87:031 or equivalent. Discussion, 3 periods; lab., 2 periods.
87:036. Spaceship Earth - 3 hrs.
The geologic environment: its dynamic nature, and interrelationship with humanity. Examines availability and utilization of energy, mineral, and water resources and the relationship of resource utilization to the natural environment. Attention given to geologic hazards; e.g., earthquakes, volcanoes, landslides, and floods. Discussion, 3 periods.

## 87:109(8). Fundamentals of Astronomy - 3 hrs.

Basic principles of astronomy; primarily for in-service teachers; no credit for students with credit in 87:010 or equivalent; may not be used toward master's program in earth science. Prerequisites: one year of high school algebra or equivalent, and consent of department head.
87:110(1). Advanced Topics in Astronomy - 4 hrs.
Selected topics in astronomy as chosen by the instructor in consultation with students enrolled. Discussion. 3 periods; lab., 2 periods. Prerequisites: 88:054 or equivalent; 87:010 or equivalent, and 80:046 or equivalent; junior standing or departmental approval.
87:113(g). Topics in Earth Science - $1-3 \mathrm{hrs}$.
Offered both on and off campus in flexible format. May include plate tectonics, geomagnetism, naked-eye astronomy, telescope usage, weather forecasting. Topics to be listed in Schedule of Classes. May repeat for credit on a different topic. Application to major requires approval of department head. Prerequisite: junior standing or consent of instructor.

## 87:125(g). Prtnctples of Pulcontoloy - 4 hrs.

Basic principles of paleontology; special emphasis on invertebrate animals of the geologic past, their morphology, evolutionary trends, classification, and distribution. Field trips for study of fossil occurrences and collection of fossil materials. Prerequisites: 87:035 or 84:024; junior standing or department approval. Discussion, 2 periods; lab., 4 periods.
87:128(1). Fundmmentals of Geoloty - 4 hrs.
Basic principles of physical and historical geology. Prerequisite: departmental approval.
87:129(d). Structural Geoloy - 4 hrs.
The origins and mechanics of rock deformation. Description and analysis of structural features. Field work where appropriate. Prerequisites: 87:031; 87:035 and junior standing or consent of instructor. Discussion, 2 periods; lab., two 2hour periods.
87:130. Crystullography - 2 hrs.
Morphologic, structural, and x-ray crystallography. Laboratory exercises emphasize identification of unknown compounds, determination of space lattices, space groups, and cell parameters by $x$-ray diffraction. Discussion, 2 periods; lab., 6 periods (nine-week course). Prerequisite: 86:044 or equivalent.

## 87:131. Systematic Minenlody - 2 hrs.

Crystal chemistry, determinative methods, and systematic description of natu-rally-occurring compounds with emphasis on rock-forming minerals. Laboratory exercises cover advanced determinative techniques including density, chemical, and optical properties. Discussion, 2 periods; lab., 6 periods (nine-week course). Prerequisite: 87:031 and 87:130.
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 interpretation, field records, and geological reports. Short field trips. Discussion, 2 periods; lab., 3 periods. Prerequisites: Working knowledge of trigonometry and 87:031 or 97:031 or equivalent; junior standing or departmental approval.

87:135(8). Optical Mineralogy-Petrogruphy - 4 hrs.
The optical properties of minerals and the use of the petrographic microscope. Introduction to the petrography of igneous, metamorphic, and sedimentary rocks, with emphasis on the identification of minerals in thin sections. Discussion, two periods; lab., two 3-hour periods. Prerequisite: 87:131.
87:136(g). Stratigraphy and Sedimentation - 4 hrs.
Investigation of layered rocks, sedimentary processes, sedimentation, emvironments of deposition, correlation procedures, and classification and description of common sedimentary rocks. Field trips. Prerequisite: 87:035; or corequisite: 87:035 and consent of instructor. Discussion, 2 periods; lab., two 2-hour periods.
87:141(8). Ceomorpholoty - 3 hrs .
Mass wasting process and sculptural evolution of varied terrains. Emphasis on Midwestern geomorphology. Short field trips. Discussion, 2 periods; lab., 3 periods. Prerequisites: 87:031 or 97:031 or equivalent; junior standing or departmental approval.
87:142(s). Imeous Petrola 1 - 4 hrs.
Description, classification, and genesis of igneous rocks. Discussion, two periods; lab., two 3-hour periods. Prerequisite: 87:135.

## 87:150(g). Astronomy Education - 2 hrs.

Fundamentals of astronomy education; includes review of the night sky; use of planetariums of small and medium size; practice with planetarium projectors; review of resources and resource materials for astronomy teaching; use of media; photography, telescopes and astronomy teaching aids. Discussion 2 periods. Prerequisites: 87:010, 87:011 and junior standing or consent of instructor.

## 87:154(g). Observational Astronomy - 2 hrs .

Use of astronomical equipment, with laboratory experience in collecting, analyzing, and interpreting data; work with telescopes, cameras, spectographs, and photometers; utilization of observing aids; charts, catalogs, photographic surveys, and ephemerides. Laboratory 4 periods. Prerequisites: junior standing, 87:011 and instructor's permission.

## 87:160(g). Ceoloty of Iown - 2 hrs .

lowa's geologic history: Precambrian 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: junior standing or departmental approval. Discussion, 2 periods.
87:165(g). Ocennography - 3 hrs.
Basic principles of geological, biological, chemical, and physical oceanography; emphasis on marine geology. Includes: physiographic features of ocean basins, coastal features and processes, oceanic sediments, biological and geological resources, and ocean management. Discussion, 3 periods. Prerequisites: 87:031 or equivalent; junior standing or consent of instructoc. Offered in alternate years.

## 87:171(g). Environmental Geoloty - 3 hrs.

Geology's relation to the social, economic, and political realms is emphasized through team preparation of simulated environmental-impact statements or planning documents. Where possible, issues or problems of local concern will be analyzed. Discussion, 3 periods. Prerequisites: junior standing and 87:031 or equivalent.
87:180. Undergraduate Research in Earth Science - $1-3 \mathrm{hrs}$.
Research activities under direct supervision of Earth Science faculty member. Credit to be determined at registration. May be repeated for credit for maximum of 6 hours. Prerequisite: departmental approval.

## 87:185(g). Seminar - 1.2 hrs .

Topics in astronomy, earth science, geology, or meteorology; emphasis on readings from original sources and current summary works. May be repeated for a maximum of four hours. Prerequisite: departmental approval.
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.
87:191. Undergraduate Precticum - $1-2 \mathrm{hrs}$.
Practical experience in teaching; participation in laboratory and instructional assistance under direct supervision of staff member. Prerequisites: junior or senior standing; consent of instructor and department head. May be repeated for credit to maximum of 4 hours.
87:231. Mineral Deposits - 3 hrs.
The origin of metallic ore deposits with emphasis on the character of the orebearing solutions, their mode of transfer and controls of ore deposition; a study of non-metallic 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 - 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.

## 88 Physics

88:008. The Physica of Sounds - 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 humanity's relationship to the 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.
88:011. Conceptual Physics - 3 hrs.
Selected topics are treated so that the ideas of physics can be understood conceptually without strong dependence on mathematical language. Emphasis is on awareness, interpretation, and understanding of easily observable physical phenomena with illustration by numerical examples. Topics include energy; temperature and heat; waves and musical sounds; electricity and magnetism; light and color. Discussion, 2 periods; lab, 2 periods. May not be applied to a physics major or minor.
88:018. Musical Sounds and Reproduction - 3 hrs .
Production, transmission, reception of sound; analysis and synthesis of complex musical tones. Applications to musical instruments, acoustics and electronic reproduction and amplification. Some background in music and/or audio systems desirable. Discussion, 2 periods; lab., 2 periods. Does not apply toward a physics major.

## 88:040. Elementary Holography - 1 hr

Students make and view holograms with light from laser. Suitable for students with little or no background in physics. Presents elementary theory of holograms and laser light; emphasis on readily applied information and techniques. May not apply toward a physics major. 9 -weeks course. Discussion, 1 period; lab., 2 periods.

## 88:052. Princtples of Physics - 4 hrs.

Topics in mechanics, fluids, heat and electricity with applications. For students in industrial and allied health fields. Does not apply toward a physics major or minor. No credit given for a student with credit in 88:054 or 88:056. Prerequisite: working knowledge of algebra and elementary trigonometry. Discussion, 3 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

A laboratory to accompany 88:130 for students who have not taken 88:054. Prerequisite or corequisite: 88:130.

## 88:061. Experiments in Physics II - 1 hx

A laboratory to accompany 88:131 for students who have not taken 88:056. Prerequisite or corequisite: 88:131.
88:110. Engineering Calculations - 2 hrs.
Fundamentals of calculations in engineering and applied physics: calculations on a programmable calculator; units and dimensional analysis; graphical analysis; data reduction; approximate solution of equations; economic calculations. Prerequisite or corequisite: 80:048 or 80:060. Prerequisite: 88:054 or 88:130.

88:120(g). Elementary Atomic and Nuclear Physics - 4 hrs.
Atomic and nuclear structure, elementary particles, radioactivity, wave-partiche duality, interactions and detection of radiation. Lower mathematical level than 88:137. Prerequisites: 88:056; junior standing. Discussion, 3 periods; lab., 2 periods. Cannot apply towards an undergraduate or graduate physics major:
88:130. Physics I - 4 hrs.
A calculus-based course in mechanics, heat, and wave motion. Discussion, 5 periods. Prerequisite or corequisite: 80:060.
88:131. Physics II - 4 hrs.
A calculus-based course in electricity, magnetism, and optics. Discussion, 5 periods. Prerequisite: 88:130; prerequisite or corequisite: 80:061.
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 eneriy demands, production, use and distribution; and topics related to noise, thermal, air, water, and radiation pollution. Discussion, 3 periods. Prerequisites: 88:056 or 88:131; 80:048 or 80:061; junior standing; or consent of instructor.
88:136(g). Thermodynamics - 3 hrs.
First and second laws of thermodynamics: PVT surfaces; reversibility, entropy; phase transitions; statistical viewpoint. Prerequisites: 80:062 or 80:063; 88:130.
$88: 137$ (g). Physics III - 4 hrs.
Special relativity; quantum phenomena; wave-particle duality; atomic and nuc" ar structure; properties of solids, interaction of radiation with matter; element particles. Prerequisite: 88:131.
88:138(g). Physics III Laboratory - 1 hx
Experiments on interactions of photons and electrons, mass and charge of electrons, atomic spectroscopy, nuclear radiation detection and spectroscop/ properties of solids. Prerequisite: 88:061 or 88:056. Corequisite: 88:137.
88:140(g). Holography Laboratory and Lasers - 3 hrs.
Laboratory procedures for making transmission and reflection holograms; interferometry; assembly and operation of external mirror laser, use of solid state diode laser with fiber optics. Theory of interference and laser operation. Discussion, 2 periods, lab., 2 periods. Prerequisites: 88:056; junior standing or departmental approval.

## 88:145(g). Vibnations and Sound - 3 hrs.

A laboratory-centered course of fundamental and applied experiments related to vibrations; the analysis and synthesis of vibrations and sounds; the transmission, reflection, refraction, attenuation, and dispersion of sound waves; resonance, interference, and diffraction phenomena; and noise measurement and attentustion. Lectures emphasize theory related to experiments. Fourier analysis is included. Discussion, 2 periods; lab., 2 periods. Prerequisites: 88:060 or 88:054; 88:130; 80:061.
88:152(g). Electronics I - 4 hrs.
Basic d.c. and a.c. circuits, electrical measurements, power supplies, transistor circuits, operational amplifier circuits. Discussion, 2 periods; lab., 4 periods, Prerequisite: 88:052 or 88:056; junior standing; or departmental approval.

## 88:154(g). Electronics II - 4 hrs.

Programmable analog switching, operational amplifier applications, digital logic gates, digital counters and registers, analog-digital comversions, analog and digital data acquisition systems. Discussion, 2 periods; lab., 4 periods. Prerequisites: 88:152; junior standing; or departmental approval.
88:157(8). Fundamentals of Physics I - 4 hrs.
Basic principles of mechanics, heat, and sound. Enrollment limited to graduate students other than physics majors. Department approval required. Prerequisite: Working knowledge of algebra and trigonometry. Discussion, 3 periods; lab., 2 periods.
88:158(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. Enrollment limited to graduate students other than physics majors. 88:160(g). Optics Laboratory - 1 hx
Imaging by mirrors, lenses and holograms; spectometers; interference; Fraunhofer and Fresnel diffraction, polarization of light; optical communication using fiber optics and Pockel's cell; spatial and temporal modes of lasers. Corequisite: 88:161.

88:161(s). Optics - 3 hrs.
Theory of lenses, optical systems, Fraunhofer and Fresnel diffraction with applications to holography, electromagnetic theory of light, polarization, absorption, scattering and dispersion, fiber optics. Prerequisites: 88:131, 88:140; corequisite: 88:160.
88:166(g). Mechanics - 4 hrs.
Vector analysis, particle dynamics, dynamics of a system of particles. Motion of a particle in a central force field. Collision problems. Rigid body motion. Lagranges equations. Theory of vibrations. Mathematical methods developed as needed. Prerequisites: 88:131; 80:149.
88:167(g). Electromagnetic Fields - 4 hrs .
Electrostatic fields and boundary value problems. Dielectric materials. Magnetic fields. Magnetic materials. Electromagnetic induction. Maxwell's equations and their applications. Mathematical methods developed as needed. Prerequisites: 80:149; 88:131.
88:170(s). Solid State Physics - 3 hrs.
Molecular binding; band theory of solids; electrical, thermal, and magnetic properties; imperfections; semiconductors; p-n junctions, and transistors. Prerequisite: 88:137. Corequisite: 88:171.
88:171(g). Solid State Physics Laboratory - 1 hr
Prerequisite: 88:138; corequisite: 88:170.
88:172(g). Introductory Quantum Mechanics - 4 hrs.
Solution of Schrodinger equation for several systems. Super-position of states. Matrix formulation. Physical interpretations. Prerequisites: 80:149; 88:137; 88:166; or consent of instructor.
88:175(g). Nuclear Physics - 3 hrs.
Interaction of rediation with matter; alpha, beta, and gamma decay; neutron physics and nuclear reactions; nuclear models; elementary particles; applications of nuclear physics. Prerequisite: 88:137; corequisite: 88:176.
88:176(g). Nuclear Physics Laboratory - 1 hx
Prerequisite: 88:138; corequisite: 88:175.
88:180. Undergraduate Research in Physics - $\mathbf{1 - 3} \mathrm{hrs}$.
Research activities under direct supervision of sponsoring staff members. Prerequisite: department approval.
88:184. Internshtp in Applied Physics - $\mathbf{1 - 3}$ hrs.
Departmentally approved work in applied physics (at an industrial, medical, or govemment laboratory) followed by oral and written reports given on the completed work. Offered only on credit/no-credit basis. Prerequisite: departmental approval.
88:185(g). Laborntory 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(f). Readings in Physics - $1-3 \mathrm{hrs}$.
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(f). Current Curricula in Physics - 2 hrs.
Philosophy, methods, and materials of high school physics curricula, including PSSC Physics, Project Physics. PSPE, TMMW, and others. Prerequisites: 8 hours of physics and 82:190 or consent of instructor. Discussion, 1 period; lab., 2 periods.

## 88:250. Special Problems in Physics - $\mathbf{1 - 6}$ hrs.

Credit determined at registration. Problems selected according to needs of students. Prerequisite: departmental approval.
88:280. Current Topics in Physics - $1-3 \mathrm{hrs}$.
Selected topics from areas of current interest in fundamental and applied physics: includes means of communication with high school students on these topics. Prerequisite: 88:137. May be repeated for a maximum of 6 hours.
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 - 3 hrs.
88:299. Research.

## 89 Biology at Lakeside Laboratory

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 lowa 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 Ecoloty I - 5 hrs.
Survey of local aquatic plants and animals and of aquatic habitats including emvironmental and community analysis. Emphasis on field work and appropriate methods.
89:104(s) (L:104). Aquatic Ecoloty II - 5 hrs.
Project work as continuation of 89:103.
89:105(g) (L:105). Plant Tixonomy - 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). Protozoolody - 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 Algne - 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(d) (L:118). Feld Entomoloty - 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 - 5 hrs.
Field and laboratory investigation of mosses, liverworts, club mosses, quilhworts, horsetails, and ferns. Many of these primary mesic plants have their westem limits in the variety of habitats in Iowa.
89:207(g) (L:107). Helmintholoty - 5 hrs.
Structure, life cycles and host parasite relationships of representative helminths; methods of collecting, preserving, mounting, and identification; experimental life cycles, methods of studying living materials, special techniques for research in helminthology.
89:210 (L:110). Field Invertebrate Zoolody - 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 Mycolog - 5 hrs.
Identification and classification of the common fungi. Techniques for identification, preservation, and culture.
89:217 (L:117). Ecoloty 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 - 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.

## 90 Social Science

90:030. Introduction to Uban Life - 3 hrs.
The American urban system and society; a transdisciplinary approach to how cities work, change and influence our society.
90:050. Introduction to Peace Studies - 1 hx
Lectures and readings on the nature of personal and structural violence. The culture, political economy, and technology of war and peace.

## $\mathbf{9 0 : 0 5 1}$. Peace Studies II - $1 \mathbf{h r}$

A study of current peace research with emphasis on proposed solutions to problems of war and violence in modern society.
90:070. Computers in the Social and Behavioral Sciences - 3 hrs.
Overview of computer applications in the Social and Behavioral Sciences. Includes hands-on introduction to use of statistical packages, word processing, and elementary programming in a language (e.g. BASIC). Course examines a variety of special computer applications, including database management, simulation, graphics displays, and real-time data collection using microcomputers. No previous experience with computers is necessary.
90:190. The Teaching of the Social Studies - 3 hrs.
Prerequisite: 12 hours in social science. Ordinarily should precede student teaching.
90:199(g). Study Tour - 1.8 hrs.
Directed program of study abroad. Programs to Europe, Asia, Latin America, Middle East, and other world areas. Study of social, historical, economic, and/or political characteristics of other countries and cultures.
80:280. Socill Science Semtnar - 3 hrs.
May be repeated for a maximum of 6 hours. Prerequisite: departmental approval.
90:297. Practicum.
90:299. Research.

## 92 Economics

Note: 92:053 and 92:054 are prerequisites for all 100g economics courses.
92:024. Economics for Ceneral Education - 3 hrs .
No credit for student who has credit in 92:053 or 92:054. May not be used for credit on major or minor.
92:053. Princtples of Macro-Economics - 3 hrs .
Determining and measuring the level of national product; monetary and fiscal policies to stabilize the economy.
92:054. Princtples of Micro-Economics - 3 hrs .
Determination of price by demand and supply; distribution of income. Prerequisite: 92:053.
92:103(g). Intermediate Macro-Economic Theory - 3 hrs.
Intermediate level macro-economics. The determinants of aggregate dernand, national product and employment; macro-economics objectives and policies.
92:104(g). Intermediate Micro-Economic Theory - 3 hrs.
Intermediate level micro-conomics. The theory of consumer choice, of the business firm and of resource allocation.
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-mployee relationships.
92:117(g). Public Finance - 3 hrs.
Taxation and govemment expenditures; fiscal policy.
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 - 3 hrs .
Comparative advantage, exchange rates, balance of payments, and trade policies.
92:137(g). Comparative Economic Systems - 3 hrs.
Examination of the capitalistic and socialistic economies through the work of their defenders and critics.

92:138(g). Sowlet Ecomomy - 3 hrs.
Soviet economic institutions; operation and performance of the Soviet economic system.
92:143(g). Economic Development - 3 hrs.
Theories of underdevelopment: approaches and proposals for development, factors influencing development.
92:148(g). Urban and Redional Economics - 3 hrs.
Theory of location and regional development; factors influencing growth and location of production, location of households, city location and urban hierarchies, land use patterns; measures and change in regional economic activity; public policy issues in regional and urban evolution. Research methods including economic base, employment multiplier, location quotient, and threshold analyses. Prerequisite: junior standing or consent of instructor.
92:150(g). Monetary Economics - 3 hrs.
Monetary theory, the supply of money, the demand for money, monetary policy, and current monetary issues. Prerequisite: 92:113.

## 92:160(g). Managerial Economics - 3 hrs .

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

## 92:168(g): Mathematical Economics - 3 hrs.

Introduction to the application of mathematics to economics with emphasis on the use of graphs, algebra, and simple calculus. Prerequisite: junior standing or consent of instructor.
92:169(g). Introduction to Econometrics - 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. Prerequisite: junior standing or consent of instructor.

## 92:170(g). History of Economic Thought - 3 hrs .

Development of economic theory from the early Greeks to the present time.
92:175(g). International Finance - 3 hrs.
International financial theories, institutions, and policies; analysis of the balance of payments, capital flows, disequilibrium and international monetary adjustments.
92:280. Seminar in Economics - 3 hrs.
92:285. Individual Readings $-1-3 \mathrm{hrs}$.
92:299. Research.

## 94 Political Science

94:010. Survey of American Politics - 3 hrs .
Course designed to meet teacher certification requirements. General Education credit for all students except Political Science majors and minors. Student may not receive credit for this course and also for 94:014.
94:011. Introduction to Polltical Sclence - $\mathbf{3} \mathrm{hrs}$.
Fundamental concepts and approaches to the scientific study of politics.
94:014. Introduction to American Politics - 3 hrs .
The processes and functions of American government in relation to concepts of American democracy and to practices of other governments.
94:020. Contemporary Polttical Problems - 3 hrs .
Current political problems/issues; General Education credit for all students except Political Science majors and minors.
94:024. Politics for Ceneral Education - 3 hrs .
Introduction to contemporary political institutions, ideas, and processes in the contemporary world. General Education credit for all students except Political Science majors and minors.

## 94:026. World Politics - 3 hrs.

Conflict and cooperation in world politics. Current international problem areas and area problems. The Atlantic Community; Soviet Union; Eastern Union; Far East; Southeastem Asia; Africa; Latin America. Not open to students who have had 94:124.

## 94:112. Political Parties - 3 hrs .

Organization and operation of political parties and elections in the United States. Prerequisite: sophomore standing or consent of instructor.

94:124. International Relations - 3 hrs.
Basic factors affecting positions and policies of states and their leaders. Implementation of national policies. Contemporary power system. Conflict resolution. Prerequisite: sophomore standing or consent of instructor.
94:125(g). International Conflict and Cooperation: North-South Dialogue - 3 hrs.

Analysis of political, social, and economic disparities and mutual interdependence between developing and developed nations; examination of the need for a new international economic order and issues of energy, food, raw materials, population, and transfer of technology. Prerequisite: junior standing or consent of instructor.
94:127(0). United States Forelgn Pollicy - 3 hrs.
Factors influencing the formation and execution of United States foreign policies and specific instruments of foreign policy. Prerequisite: junior standing or consent of instructor.
94:128(g). Foreign Policies of the Soviet Union - 3 hrs.
The formulation and implementation of Soviet foreign policies. Prerequisite: junior standing or consent of instructor.
94:131. American State Politics - 3 hrs.
An analysis of the organization, functions and operation of state and local govemments. Prerequisite: sophomore standing or consent of instructor.
94:132. Community Political Systems - 3 hrs.
Structure and functions of city govemment. Relation of the city to the state. Prerequisite: sophomore standing or consent of instructor:
94:134(g) Congressional and Administrative Policy Maling - 3 hrs.
Congressional-Administrative-Presidential politics in the formulation and execution of public policy. Prerequisites: 94:014; 94:148; junior standing or consent of instructor.
94:135(g). Modern Europenn Democracies - 3 hrs.
Political institutions, processes, and policies of Western European Democracies; emphasis on Great Britain, France, and West Germany. Prerequisite: junior standing or consent of instructor.
94:136(g). Administrative Law - 3 hrs .
The judicially enforceable requirements upon administrative agencies which affect private interests by making rules and orders, adjudicating cases, investigating, prosecuting, publicizing, and advising. Also, the legislative and executive controls over the agencies. Prerequisite: junior standing or consent of instructor.
94:140(g). Adjudication of Sochal Issues - 3 hrs .
Examination of the legal and structural elements of governmental involvement in social problems, creating new rights, obligations, and bureaucracies. Prerequisite: junior standing or departmental approval.
94:141(g). Constitutional Law - 3 hrs .
Analysis of U.S. Supreme Court decisions and changes in court personnel and operations over time. Emphasis upon federalism, the separation of powers, civil liberties, and civil rights. Prerequisite: junior standing or consent of instructor.
94:142(g). Problems in Juvenile and Family Law - 2 hrs.
Aspects of juvenile and family law; how the legislature and the courts have developed juvenile and family law, including marriage and divorce, adoption, and competency of minors. Prerequisite: junior standing or consent of instructor.
94:143(g). International Law - 3 hrs.
Legalistic rules studied in the context of a case-by-case analysis and synthesis. Prerequisite: junior standing or consent of instructor.

## 94:144 International Political Issues- 3 hrs.

An inquiry into significant international issues and problems.
94:145(g). International Organizations - 3 hrs.
A description of international governmental organizations and international nongovernmental organizations and an analysis of their role in international politics. Prerequisite: junior standing or consent of instructor.
94:146. Law and the Courts 1 - 2 hrs .
Study of the courts in America today with particular emphasis on trial courts and their impact on the community.
94:147. Law and the Courts II - 2 hrs.
Study of judicial law making, private influences on court-expanded rights, and law school methods.
94:148. Introduction to Public Administration - 3 hrs.
The place of public servants in the functioning of government and recent trends in the expansion of administration. Prerequisite: sophomore standing or consent of instructor.

94:149(g). Comparative Administration - 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. Prerequisite: junior standing or consent of instructor.
94:150(d). Political Opinion and Public Policy - 3 hrs .
The formation and development of political opinion by interest groups and mass media in the shaping of public policy. Prerequisite: junior standing or consent of instructor.
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. Prerequisite: junior standing or consent of instructor.
94:152(g). Government and Business -3 hrs .
The dynamics and legalities of regulatory administration. Prerequisite: junior standing or consent of instructor.
94:153(g). Politics of Bureaucracy - 3 hrs.
Role of the administrative system in public policy process, interaction amons agencies, interest groups, overhead control units. Congress, courts, the political parties, mass media, and public opinion. Prerequisites: 94:014; 94:148; junior standing or consent of instructor.

## 94:154(g). Lestislative Process - 3 hrs.

An analysis of the functions, powers, organization, processes, and problems of legislative systems in a comparative framework. Prerequisite: junior standing or consent of instructor.
94:155(g). Environmental Policy Maling - 3-4 hrs.
Examination and analysis of domestic and foreign policies of the U.S.A. and selected foreign countries conceming pollution and resource scarcity. Graduate student may enroll for only 3 hrs . credit. With advance permission of instructor, undergraduate student may enroll for total of 4 hrs . credit which requires contracting for completion of original research project. Prerequisite: junior standing or consent of instructor.
94:156(g). Issues in Political Thought - 3 hrs.
Examination and analysis of one or more significant issues in political thought. Prerequisite: junior standing or consent of instructor.
94:160(g). Western Political Thought - 3 hre.
The development of political thought as reflected in major thinkers from Plato through Rousseau with emphasis upon interactions among human beings and the power relationships they create. Prerequisite: junior standing or consent of instructor
94:161(f). Modern Political Thought - 3 hrs.
The development of political thought from Marx to the present with emphasis on understanding variations in such contemporary ideologies as socialism, liberalism, conservatism, and fascism. Prerequisite: junior standing or consent of instructor.
94:164(8). Government of the Soviet Union - 3 hrs.
The Soviet political system with emphasis upon the institutions and groups involved in the determination and implementation of public policy. Prerequisite: junior standing or consent of instructor.
94:165(g). East Asian Politics - 3 hrs.
Political structures and institutions of China and Japan with emphasis on the modernization process since the middle of the 19th century. Prerequisite: junior standing or consent of instructor.
94:166(g). Chinese Political Thought: From Thoism to Maolsm - 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 ideological innovation. Prerequisite: junior standing or consent of instructor.
94:168(g). Politics of South Asin - 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. Prerequisite: junior standing or consent of instructor.
94:169(g). Politics of the Middle East - 3 hrs.
A comparative analysis of major middle eastern countries, the role of religion, elites, and military in the state and nation-building processes, middle east in world affairs, modemization, technologicalization and political development. Prerequisite: junior standing or consent of instructor.

94:170(g). Politics of Modernization in Developing Areas - 3 hrs .
Theories of political development and modernization in relation to political systems of developing countries of Africa, Asia, and Latin America. Prerequisite: junior standing or consent of instructor
94:171(g). Community Planning and Development - 3 hrs.
Examination of the politics and theories of planning and development in the local and regional community. Prerequisites: 94:014; $94: 148$; junior standing or consent of instructor.

## 94:172(g). Public Budgeting - 3 hrs.

Historical development of current budgeting practices; the politics of budgetary process at the federal, state and local level; and current methods of budgeting for public asencies, focusing on integration of budgeting into program planning. Prerequisites: 94:014; 94:148; junior standing or consent of instructor.
94:173(g). Public Policy Analysis - 3 hrs .
Macro and micro-level models and techniques examined for public policy analysis; provides experience in application of those models and techniques through case studies of major policy areas. Prerequisites: 94:014; 94:148; junior standing or consent of instructor.
94:174(g). Public Personnel Administration - 3 hrs.
Development of current government personnel practices; contemporary issues in personnel administration; techniques of job analysis; recruitment and selection of employees; problems of supervision and evaluation. Prerequisites: 94:014; 94:148; junior standing or consent of instructor.
94:176(g). Methods of Public Policy Research - 3 hrs.
Applications of statistical techniques and computer analysis techniques to problems of public management. Prerequisites: 98:080; 81:070 or 90:070; junior standing or consent of instructor.
94:180. Orientation to Fieldwork in Politics - 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 Polltics - 3-8 hrs.
Student serves as intern with government official or in public or private agency. Required: junior standing, political science major. Prerequisites: departmental approval; 94:180. 1) Federal; 2) State; 3) Local; 4) Intergovernmental; 5) Legal; 6) Interest Group; 7) International; 8) Electoral.

## 94:182. Post-Intern Seminar - 3 hrs.

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.
94:183. Introduction to Comparative Politics - $\mathbf{3}$ hrs.
Basic theoretical concepts in comparative politics for studying and understanding political systems. Prerequisite: sophomore standing or consent of instructor.
94:189(g). Readings in Political Science - $1-3 \mathrm{hrs}$.
Prerequisite: 12 hours in Political Science and departmental permission. May be repeated only with permission of the department.
94:198. Independent Study.
94:224. International Politics -3 hrs .
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.
94:279. Internship in Politics - 3-6 hrs.
Student internship in one of eight types. Prerequisite: departmental approval. 1) Federal; 2) State; 3) Local; 4) Intergovernmental; 5) Legal; 6) Interest Group; 7) Intemational; 8) Electoral.

94:280. Seminar in Political Sclence - 3 hrs.
94:285. Individual Readings - $1-3 \mathrm{hrs}$.
May be repeated.
94:289. Seminar in Comparative Politics - 3 hrs .
94:289. Seminar in American Politics - 3 hrs.
94:289. Seminar in Political Thought - 3 hrs.
94:292. Research and Bibliography - 3 hrs.
94:299. Research.

## 96 History

96:010. Introduction to the Study of History - 3 hrs.
Introduction to the nature and use of history, to historiography, and to the basic methods of historical research. Required of all history majors and must be taken immediately after major is declared.
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.
96:054. 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.)
96:055. 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.

## 96:070. 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.
96:101(g). History of Ancient Greece - 3 hrs .
Archeology of the Aegean and the Minoan-Mycenaean civilization; the Homeric period, the classical civilization of Greece to Alexander the Great and the Hellenistic Age; the advent of the Romans. Prerequisite: junior standing or consent of instructor.
96:103(g). History of Ancient Rome - 3 hrs.
The Roman Republic, expansion of Roman rule, the Roman Empire, the decline and fall of the empire in the 5th century A.D. Compares the Romans as people with modern Americans. Prerequisite: junior standing or consent of instructor:
96:107(g). War and Soclety in the Modern World - 3 hrs.
A 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. Prerequisite: junior standing or consent of instructor.
96:116(g). Recent United States History - 3 hrs.
A history of the American people since 1945 with emphasis on domestic affairs. Prerequisite: junior standing or consent of instructor.
96:122(g). The Black in United States History - 3 hrs .
History of black Americans from the African background into the 1980 s, with an emphasis on the period since the end of slavery. Prerequisite: junior standing or consent of instructor.
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 Crty in United States History - 3 hrs .
Introduction to the 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. Prerequisite: junior standing or consent of instructor.
96:130(g). History of Iowa - 3 hrs.
Social, political, and economic developments in lowa from prehistoric times to the present. Prerequisite: junior standing or consent of instructor.
96:132(g). Internship in Historical Studies - 3-8 hrs.
Individualized study and experience in applied techniques, particularly state and local resources; includes readings, in-museum service, and a student-designed project. Recommended preceded by course in lowa history. Prerequisite: junior standing or consent of instructor.
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 theory of economic growth. Prerequisite: junior standing or consent of instructor.

96:136(g). American Colonial History - 3 hrs.
Seventeenth and 18th Century America; development of colonial societies in the New World and the American Revolutionary era. Prerequisite: junior standing or consent of instructor.
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. Prerequisite: junior standing or consent of instructor.
96:138(g). United States Foreign Relations - 3 hrs.
Assessment of achievements and failures of United States diplomacy since 1776 and relationships of these to present and recent past. Prerequisite: junior standing or consent of instructor.
96:139(g). Civil War and Reconstruction - 3 hrs.
Causes of the Civil War, the nature of the conflict, and the short-range and longrange consequences of the war. Prerequisite: junior standing or consent of instructor.
96:140(g). History of the West - 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. Prerequisite: junior standing or consent of instructor.
96:141(g). The South in United States History - 3 hrs.
Traces the southem experience from colonization and settlement through the Civil War. Reconstruction, and the late 19th and 20th century racial and political adjustments; emphasis on post-Reconstruction period as well as the role of blacks in shaping southern society. Prerequisite: junior standing, or consent of instructor.
96:142(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. Prerequisite: junior standing or consent of instructor.

## 96:143(g). Dissent in United States History - 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. Prerequisite: junior standing or consent of instructor.
96:144(g). History of American Thought - 3 hrs.
Historical examination of principal idea-systems which shaped the intellectual profile of American civilization. Prerequisite: junior standing or consent of instructor.
96:145(g). Religion in America - 3 hrs.
Same as $64: 117$ (g). Prerequisite: junior standing or consent of instructor.
96:146(s). 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 woment roles in other areas of the world. Prerequisite: junior standing or consent of instructor.
96:147(g). The United States: Gilded Age to the Great Depression - 3 hrs. United States history from the end of Reconstruction through the late 19thcentury economic revolution, the Populist and Progressive reform movements, the emergence of the 20th-century internationalism, and the economic collapse of 1929. Prerequisite: junior standing or consent of instructor.
96:148(g). World War $1-2$ hrs.
The origins, development, and consequences of World War I. Prerequisite: junior standing or consent of instructor.

## 96:149(g). United States in World War II - 3 hrs.

Stresses the U.S. diplomacy in Europe and the Far East as the war materialized, the wartime allied coalition to defeat the Axis forces, the home front, and the beginnings of the Cold War. Prerequisite: junior standing or consent of instructor.
96:150(g). Soclety and Culture in the United States - 3 hrs.
Describes and analyzes the development of and changes in community, family, social stratification, the nature of reform, morality, uses of leisure time, and attitudes toward science and religion in the nineteenth and twentieth centuries. Prerequisite: junior standing or consent of instructor.
96:151(g). The Anclent Near East - 3 hrs.
The artistic, literary, political, religious, and social accomplishments of Near Eastern people of ancient times. Prerequisite: junior standing or consent of instructor:

96:152(g). Medieval Ctvilization - 3 hrs.
Social, economic, political, and cultural features seen as foundations of the modern period. From the Fall of Rome to the 15th century. Prerequisite: junior standing or consent of instructor.
96:153(g). The Renaissance and Reformation - 3 hrs.
The intellectual, artistic, economic, and political developments of the Italian and Northern Renaissance, culminating in an examination of the 16th century Reformation. Prerequisite: junior standing or consent of instructor.
96:156(g). History of European Popular Culture - 3 hrs.
Examines various aspects of everyday life in European history, including work, leisure, diet, housing, health, sanitation, role of women, status of children, family life, popular festivals, fashions, fads, sports, and games. Prerequisite: junior standing or consent of instructor.
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. Prerequisite: junior standing or consent of instructor.
$\mathbf{9 6 : 1 5 8 ( g )}$. Age of Absolutism and the Enlightenment - 3 hrs.
History of the emerging nations of Europe with emphasis upon the Age of Absolutism, Louis XIV, and the Enlightenment. Prerequisite: junior standing or consent of instructor.
96:160(g). Europe stnce 1919-3 hrs.
Seeks the reasons for an age of conflict in the Post World War I era; political philosophies and personalities of the period. Prerequisite: junior standing or consent of instructor.
96:162(g). European Thought since the Enlightenment - 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 Tudor-Stuart dynasties, the Glorious Revolution of 1688; Englands beginnings as a great power and her relations with the rest of Europe. Prerequisite: junior standing or consent of instructor.
96:165(g). Engith 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. Prerequisite: junior standing or consent of instructor.
96:168(g). European Imperinlism - 3 hrs.
Motivations, institutions, and policies of European expansion in Asia, Africa, and Latin America. Prerequisite: junior standing or consent of instructor.
96:169(g). History of Imperial Russia - 3 hrs.
Political, social, economic, and cultural aspects of Russia with emphasis on the 19th century. Prerequisite: junior standing or consent of instructor.
96:170(g). History of Soviet Russla - 3 hrs.
Political, social, economic, and cultural developments of Russia in the 20th century, emphasis on ideology. Prerequisite: junior standing or consent of instructor.
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. Prerequisite: junior standing or consent of instructor.
96:172(g). History of Cermany since 1871 - 3 hrs.
Political, social, economic, and cultural developments of Germany within the 19th and 20th centuries; emphasis on the Nazi period. Prerequisite: junior standing or consent of instructor.
96:174(g). History of Modern France - 3 hrs.
Surveys of cultural, economic and political history of France in the 19th and 20th centuries. Prerequisite: junior standing or consent of instructor.
96:175(g). Modern African History - 3 hrs.
Survey of 19th and 20th century sub-Saharan Africa including economic and social development, the emergence of modern nationalist movements, and the character of the European contact and its interaction with traditional African politics. Prerequisite: junior standing or consent of instructor.
96:176(g). Colonial Latin American History - 3 hrs.
Discovery, exploration, conquest and development of Colonial Latin America. Prerequisite: junior standing or consent of instructor.

96:177(g). Hitotory of Mexico and the Caribbean Area - 3 hrs.
Mexico and the major Caribbean countries, the United States in the Caribbean, with emphasis on the 20th century. Prerequisite: junior standing or consent of instructor.

## 96:178(g). Modern Middle East History - 3 hrs .

Examines Middle East history from 1789 to the present including islamic roots, the rise of nationalism in various states, Arab attempts at unity, and the ArabIsreli conflict. Prerequisite: junior standing or consent of instructor.
96:180(g). Latm American History - 3 hrs.
Modern development of the Latin American States and their relations to the United States. Prerequisite: junior standing or consent of instructor.
96:181(g). Pre-Modern South Asin - 3 hrs.
The culture and institutions within the Indian subcontinent from antiquity through the Hindu and lslamic periods. Prerequisite: junior standing or consent of instructor.
96:182(g). Modern South Asin - 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. Prerequisite: junior standing or consent of instructor.
96:183(g). Pre-Modern Chinese History - 3 hrs.
Cultural and institutional developments in China from earliest times to ca. 1800
A.D. Prerequisite: junior standing or consent of instructor.

## 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. Prerequisite: junior standing or consent of instructor.
96:188(g). South Asinn Intellectual History - 3 hrs.
Intellectual developments in the Indian subcontinent. Prerequisite: junior standing or consent of instructor.
96:189. Readings in History - $\mathbf{1 - 3} \mathrm{hrs}$.
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. JunionSenior Seminar - $1-3$ 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(s). 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.

## 96:198. Independent Study

96:238. United States Diplomscy - 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 - $1-3 \mathrm{hrs}$.
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.
96:289. 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. 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 of modem European history.
96:290. Historical Methods - 3 hrs .
Investigation into the problems confronting the historian and an analysis of the methods and techniques employed by the historian.

96:292. Historical Analysis - $\mathbf{3}$ hrs.
Logical, methodological, philosophical, and theoretic problems of historical inquiry, emphasis on developing criteria for the critical evaluation of historical scholarship.
96:297. Practicum - 2 hrs.
96:299. Research.

## 97 Geography

97:010. Humen Geotraphy - 3 hrs.
Interaction between peoples and their environments. Spatial patterns and processes of: population distribution, population characteristics, population movement, human environmental impact, economic activity.
97:025. World Geography - 3 hrs.
Reasons for and consequences of variations over the surface of the earth of cultural, economic, physical, and other attributes of places.

## 97:031. Elements of the Natural Envtronment - 4 hrs.

Survey of major elements of the physical environment; emphasis on interaction of processes resulting in spatial variations of weather and climate, landforms, soils, and vegetation, and on the areal associations among environmental components. Lecture, 3 periods; lab., 2 periods.
97:050. Communicating Throuth Mips - 2 hrs.
The map as a communication tool, from perspectives of map maker and map usex Representation of same data in different ways.
97:060. Introduction to Cartodraphy - 3 hrs.
Basic knowledge and skill in map making. Map essentials, map symbols, kinds of projection, field mapping, and the use of air photos. Lecture, 2 periods; lab., 2 periods.
97:105(g). Advanced Cartognphy - 3 hrs .
Application of cartographic principles and techniques in compiling special purpose maps. Emphasis on thematic maps, techniques of computer mapping, and map reproduction. Lecture, 2 periods; lab., 2 periods. Prerequisites: 97:060 and junior standing or consent of instructor.

## 97:107(g). Aerial Photo Interpretation and Photoprammetry - 3 hrs.

Basic principles of photogrammetry, aerial photo interpretation; emphasis on interpretation of physical and cultural phenomena on the earth's surface. Analysis of imagery obtained through aircratt or satellite-borne cameras. Prerequisite: junior standing.
97:108(g). Remote Sensing - 3 hrs .
Interpretation and analysis of non-visual imagery, including color infrared, thermal infrared, radar, multispectral, and digital data. Applications to physical and cultural environmental conditions. Lecture, 2 periods; lab, 2 periods. Prerequisite: 97:107 or consent of instructor.
97:109. Quantitative Methods in Spathl Analyals - 3 hrs .
Application of selected mathematical models and statistical techniques (descriptive and inferential) to the analysis of spatially varying phenomena. Lecture, 2 periods; lab., 2 periods. Prerequisites: 97:010 or 97:025 or 97:031; 80:040 or 80:046 or consent of instructor.
97:110(s). Climatoloty - 3 hrs.
Fundamentals of general climatology. Climatic classification and the geographical distribution of climatic types. Focus on climate as a principal component of our physical environment. Lecture, 2 periods; lab., 2 periods. Prerequisite: junior standing or consent of instructor.
97:112(g). Landform Analyais - 3 hrs.
Analysis of processes by which geomorphic agents shape the landscape and examination of resulting landforms. Lecture, 2 periods; lab., 2 periods. Prerequisite: junior standing or consent of instructor.
97:115(g). Soils - 3 hrs.
The nature and properties of soils; their origins, development, classification, uses, and management. Discussion, 2 hrs.; lab., 2 hrs. Prerequisite: 97:031, junior standing or consent of instructor.
97:120. Economic Ceogrophy - 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(1). Trunsportation Planning and Analyals - 3 hrs.
The structure of transportation systems and their role in social and economic interaction; methods of transportation analysis; models of transportation planning. Prerequisites: junior standing; 97:120 or 97:132 or consent of instructor.
97:130(1). Culturni Geography - 3 hrs.
A systematic study of cultural geography, with emphasis on the cultural elements of the landscape, their processes, area association and differentiation. Prerequisites: either 97:010 or 97:025 or 97:031 or consent of instructor, and junior standing.
97:132. Urban Ceography - 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.
97:135(g). Urban Land Use and Planning - 3 hrs.
Theories and models of urban form, structure, and land use. Public policy and urban planning methods emphasized. Prerequisites: junior standing; 97:132 or consent of instructor
97:136(g). Rural Land Use and Planning - 3 hrs.
Physical, economic, and cultural factors that influence the patterns of rural land use; emphasis on governmental policy and planning methods as applied to rural land use patterns within the United States. Prerequisites: junior standing; 97:010 or 97:031 or consent of instructor.
97:140(s). Historial Ceography of a Selected Repion - 2-3 hrs.
Processes involved in the evolution of the cultural and physical landscape of a selected region; analysis of specific landscapes at different time periods and changes through time of specific features. May be repeated for credit only by taking different regional sections. Regions(s) to be announced in Schedule of Classes. Prerequisites: 97:010 or 97:025 or 97:031 or consent of instructor, and junior standing.
97:142(d). Reglonal Analyats and Planning - 3 hrs.
Location theory and methods of regional science applied to the study of regional structure and the problems of regional planning. Prerequisites: junior standing; 97:120 or consent of instructor.
97:146(g). Advanced Quantitative Spatial Analyals - 3 hrs.
Analysis and interpretation of spatial and temporal data, application of multivariate techniques in geographic research, and the use of mathematical models in spatial analysis. Lecture, 2 periods; lab, 2 periods. Prerequisites: 97:109; and junior standing or consent of instructor.
97:150(g). Regional Geography - $2-3 \mathrm{hrs}$.
Detailed study of the characteristics of one region (e.g., Anglo-America, South America, Europe, Middle East, Iowa). May be repeated for credit only by taking different regional sections. Region(s) to be announced in Schedule of Classes. Prerequisites: 97:010 or 97:025 or equivalent; junior standing or consent of instructor
97:161(g). Field Studies in Ceography - 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.
97:162(g). Computer Cartography - 3 hrs.
Introduction to computer graphics emphasizing the utility of the computer in cartography; the employment of current cartographic display hardware and software systems, and the applications of computer mapping to geographic problems. Prerequisites: 97:060 and junior standing, or consent of instructor.
97:170(d). Political Geography - 3 hrs.
Prerequisites: 97:010 or 97:025 or 97:031 or consent of instructor; and junior standing.

## 97:177. Internship in Geopraphy - $1-3$ hrs.

Practical experience in business, industry, or a government agency. Prerequisites: 8 credit hours of geography course work and approval of the head of the department. May be repeated for a maximum of 6 credit hours.
97:180. Senior Seminar in Geography - $2-3$ hrs.
Specific issues, problems, and/or topics examined through application of geographic principles and use of geographic analysis. Research paper required. Prerequisites: minimum of 90 semester hours; 15 hours of geography to have been completed no later than end of semester in which seminar is taken.

97:182. Conservation and Management of Resources - 3 hrs .
The use and management of natural resources, including studies of environmental issues. Prerequisite: 97:010 or 97:025 or 97:031.
97:185(g). Population Geography - 3 hrs.
Patterns, models, and process of the spatial structure of population growth, distribution, and movement. Prerequisites: 97:010 or 97:025 or 97:031 or consent of instructor, and junior standing.

## 97:189. Rendings in Ceography - $1-3$ 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. Prerequisites: either 97:010 or 97:025 or 97:031 or consent of instructor, and junior standing.

## 97:203. Field Methods - 3 hrs .

A survey of geographical field procedures and problems, including measurement techniques, obsevations, and mapping based on field trips. Prerequisite: Departmental approval. Lab., 2 three-hour sessions.

## 97:277. Internship in Geography - 1-3 hrs.

Practical experience in business, industry, or a government agency. Prerequisites: 8 credit hours of geography course work and approval of the head of the department. May be repeated for a maximum of 6 credit hours.

## 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 Ceography - $1-3 \mathrm{hrs}$.
Prerequisite: Approval of the head of the department.
97:288. Research and Blbliography - 2 hrs.
Introduction to methods of geographical analysis. Scholarly use of source materials and effective presentation of research findings.

## 97:299. Research.

## 98 Sociology

98:058. Princtples of Socioloty - 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 - 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 - 3 hrs .
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. Prerequisites: 80:020 or equivalent; 98:058 or 99:011 or 45:040 or consent of instructor.
98:085. Research Methods in Secil Relations - 3 hrs.
Introduction to basic research methods used in social research. Conceptualization and operationalization of research problems. Examination of various research designs used to collect data. Introduction to sampling, instrumentation, data processing, data analysis and report production. Prerequisite: 98:080.
98:100(g). Indiviland Behwior - 3 hrs .
The development of individualized behavior, a systematic analysis of social ization as a communicative process through the study of interaction among persons within primary groups, institutions, and the human community. Prerequisites: 98:058; junior standing or consent of instructor.
98:101(g). Collective Behavior - 3 hrs .
The development of collective behavior; a systematic analysis of deviant, nonnormative behavior in panic situations, crowds, masses, publics. The organization and behavior of sects, cults, interest groups and social movements. The analysis of mass fads, fashions, and crazes. The development of public opinion and propaganda. Prerequisites: 98:058; junior standing or consent of instructor.
98:105. The Fanlly - 2 hrs.
The institutional aspects of family life. Prerequisite: 98:058.

98:110. Urban Society and Culture - 3 hrs.
An analysis of the nature, causes and consequences of urbanization in crossculture perspective; urban structures, characteristics and processes of urban adaptation. Prerequisite: 98:058 or 99:011 or consent of instructor. (Same as 99:167.)

## 98:111. Rural Sociolog - 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). Industrial Sociology - 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. Prerequisites: 98:058; junior standing or consent of instructor.
98:116(d). Correctional Treatment: Theory and Practice - 3 hrs.
An examination of the evolution and development of correctional treatment in the United States, with special attention to the description and evaluation of programs in juvenile and adult corrections. Alternatives to the rehabilitative ideal are presented in the course, and students are expected to develop other treatment models. Prerequisites: 98:058 or 98:060; 98:126; 98:127; junior standing or consent of instructor.
98:121(g). Mental Deviance and Mental Health Institutions - 3 hrs.
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: 98:060 or consent of instructor, junior standing or consent of instructor. (Same as $45: 121$.)
98:122(g). Criminal Justice System - 3 hrs.
The genesis, transformation, and day-to-day operation of criminal justice within our society; emphasis on interrelationships between specific stages in the crimecontrol process and the differences between U.S. and other criminal justice systems. Prerequisites: 98:127; junior standing or consent of instructor.
98:123(g). Soclal 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. Prerequisites: 98:060; junior standing or consent of instructor.
98:124(g). The Socloloty of Policing - 3 hrs.
A sociological investigation of the evolution and structure of policing in the United States society, with special attention to conflicts and imperatives which define police officers' roles and the character of police work. Prerequisites: 98:058 or 98:060; 98:123 or 98:127; junior standing or consent of instructor.
98:125(g). Social Gerontoloty - 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; junior standing or consent of instructor.

## 98:126(g). Corrections and Punishment - $\mathbf{3}$ hrs.

Punishment and correction in modem society, the changing relationship between the organization of society and the handling of criminal offenders; emphasis on character and functions of contemporary conditions, as well as alternative response to crime. Prerequisites: 98:127; junior standing or consent of instructor.

## 98:127. Juvenile Delinquency - 3 hrs.

Types of juvenile delinquents, causes of delinquent behavior, social institutions and their effect upon delinquency, prevention, and control of delinquent behavior. Prerequisite: 98:058 or 98:060. A student may not receive credit for both 98:120 and 98:127.
98:128(g). The Socioloty of Law - 3 hrs .
A sociology analysis of judicial and jury decision making, legal structures, legislation, power, beliefs, conflict, and social change. Criminal, civil, and public law will be examined. Prerequisites: 98:058 or 98:060 and junior standing; or consent of instructor.
98:129(g). Comparative Criminolody - 3 hrs.
Criminology theory and practice is examined in a cross-cultural perspective. Prerequisites: $98: 058$ or $98: 060 ; 98: 123$ or $98: 127$; junior standing or consent of instructor.

## 98:130(g). Minorty Group Relations - 3 hrs .

A study of the interpersonal and social relations of minority groups within the larger American society, with special reference to Black-White relations. Prerequisites: 98:058; junior standing or consent of instructor. (Same as 45:163.)
98:131(g). Women and the Criminal Justice Syatem - 3 hrs.
A sociological analysis of women as victims, offenders, practitioners and profe sionals in the criminal justice system. The changing perceptions and behaviors of women in the United States and other countries are examined in relation to the role expectations of women in the criminal justice system. Prerequisites: 98:058 or 98:060; junior standing or consent of instructor.
98:135(g). Soclal Stratification - 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. Prerequisites: 98:058; junior standing or consent of instructor:
98:136. Community Structure and Change - 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). Sochal 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 45:144(g).)

## 98:144. Population - 3 hrs.

Comparative study of population composition, growth and major trends throughout the world; includes fertility, migration, and mortality. Introduction to techniques of populations analysis; theories of population change, and problems of population policies. Prerequisite: 98:058.

## 98:145(g). Research Experience in Sociology -1-3 hrs.

Research participation and/or independent supervised research. Prerequisite: 15 semester hours in sociology including 98:080 and 98:085, and consent of instructor. May be repeated for up to 6 hours of credit.

## 98:148. Environmental Socioloty - 3 hrs.

Issues of resource depletion and environmental degradation examined from a socio-ecological perspective. Interaction between these problems and patterns of social organization, and impacts of these problems on quality of life are emphasized. Prerequisite: 98:058.

## 98:150(g). Sociology of Conflict - 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. Prerequisites: 98:058; junior standing or consent of instructor.

## 98:156(g). Social Movements - 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. Prerequisites: 98:058; junior standing or consent of instructor.
98:160(g). Soctal Data Analysis - 3 hrs.
Intermediate methods of analysis using standing computer software program packages; includes descriptive and inferential statistics with controlled relationships, multivariate analysis, and scale analysis techniques. Primary orientation to survey data in social sciences. Prerequisites: 98:080 or equivalent; junior standing or consent of instructor.
98:162(g). Politics, Law and Culture: Cross-Culture Perspectives - $\mathbf{3}$ hrs. A comparative approach to the study of politics and law in sociocultural contexts. Political and legal institutions, systems and processes are considered based on case studies from selected cultures. The focus is on traditional cultures. Prerequisites: 99:011 or 98:058; junior standing or consent of instructor. (Same as 99:162.)
98:165(g). Survey Research Methods - 3 hrs .
Introduction and application of methods used in survey research and public opinion polling. Emphasis on survey sampling, index and scale construction, questionnaire design, pre-testing, and report production. Prerequisites: junior standing and 98:085 or consent of instructor.

98:168(g). Culture, Disease, and Healing - 3 hrs.
Cross-cultural consideraton of cultural, biological and ecological factors in disease and health; including disease and evolution, folk healers, nonwestern medical systems and health care systems in the U.S. Prerequisites: 99:011 or 98:058; junior standing or consent of instructor. (Same as 99:168(g).)
98:169(g). Drug Use and Abuse in Cross-Cultural Perspective - 3 hrs. A biocultural approach to use of alcohol, hallucinogens, marijuana, opium, and other drugs in selected societies. Topics include relationships between druginduced states and deviant behavior, socio-cultural factors and addictive states, criminalization of drug use in U.S., and implications of cross-cultural perspective for prevention and treatment of drug abuse. Prerequisites: 99:011 or 98:058; junior standing or consent of instructor. (Same as 99:169(g).)
98:170(g). The Development of Modern Social Theories - 3 hrs . Summary and critical appraisal of the growth of sociological thought; historical consideration of social philosophy; introduction of leading sociological thinkers and their theories of society. Prerequisites: 98:058; junior standing.

## 98:172(g). Sociology of Relidion - 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. Prerequisites: 98:058; junior standing or consent of instructor.
98:173(d). Alienation - 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. Prerequisites: 98:058; junior standing or consent of instructor.
98:174(g). Ethnographic Interviewing - 3 hrs.
Practical application of qualitative techniques in the Social Science interview; includes construction of descriptive questions, domain analysis, taxonomic and componential analysis. Prerequisites: 98:058 or 99:011; junior standing or consent of instructor. (Same as 99:174(g).)
98:175(g). Theory and Criminal Justice - 3 hrs.
Analysis of crime and its effect upon society; examination of theoretical models undergirding the prevention and control of criminal behavior, model-building exercises on the justice system. Prerequisites: 98:127 or equivalent; junior standing or consent of instructor.
98:176(g). Social Change - 3 hrs .
Nature of social change and its implications for personality and society. Prerequisite: 98:058; junior standing.
98:180(g). Seminar in Sociology - 1-3 hrs.
Selected topics; provides opportunity to correlate previous course work and knowledge in field of sociology. Topic for specific semester listed in Schedule of Classes. Prerequisite: 15 semester hours in sociology or consent of instructor. May be repeated for up to 6 hours of credit.
98:184(g). Experience in Applied Socioloty - 3-6 hrs.
Work experience in applied sociology. Consultation with instructor required prior to registration. Prerequisites: 12 semester hours in sociology and consent of instructor. Must be taken on ungraded (credit/no credit) basis.
98:189(g). Readings in Sociology - $1-3 \mathrm{hrs}$.
Prerequisites: 9 hours in sociology and departmental permission; junior standing or consent of instructor. May be repeated only with approval of department.
98:200. Contemporary Socioloy Theory - 3 hrs.
Description and analysis of the main currents in contemporary sociological thought; principal sociological theorists; major themes, schools, trends, issues, and debates in theory. Prerequisite: 98:170. Open to seniors with consent of department head.
98:201. Advanced Research Methodoloty - 3 hrs.
Relationship between theory and research, grand methodology; logic and philosophy of sociology, science and sociology; theory construction, formal models, explanation, prediction and cause; value freedom, objectivity and ideology. Prerequisite: 98:085. Open to seniors with consent of department head.
98:280. Seminar in Socioloty - 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 - 13 hrs .
98:297. Practicum.
98:299. Research.

## 99 Anthropology

## 99:010. Human Origins - 3 hrs .

Introduction to the physical and prehistoric development of humankind, including primate and human evolution, modem races, and the archaeological cultures of the world.
99:011. Culture, Nature, and Soclety - 3 hrs.
Introduction to a cross-cultural perspective on human behavior. Considers the nature of society and culture among diverse human groups, from huntergatherers to industrialized city dwellers, by examining their technologies, economic systems, family life, political structures, art, languages, and religious beliefs and practices. Emphasis is on non-Western societies.

## 99:132. North American Indians - 3 hrs.

Ethnographic survey of the sociocultural systems developed by native Americans north of Mexico; emphasizes the relationships that exist among ecological factors, subsistence techniques, social organizations, and belief systems.
99:136. Soch1 Anthropoloty of India - 3 hrs.
The social organization of India with particular reference to contemporary village life. Prerequisite: 99:011 or $68: 125$ or consent of instructor.
99:137. South American Indians - 3 hrs .
Ethnographic survey of the sociocultural systems developed by foraging and horticultural peoples of South America; emphasizes relationships that exist among ecological factors, subsistence techniques, social organizations, and belief systems.
99:142(g). Archseoloty of the New World - 3 hrs.
The prehistory of North American Indians and major prehistoric cultures in Central and South America, including the Aztec, Maya, and Inca. Traced from the earliest arrival of peoples in the New World to the time of European contact. Prerequisites: 99:010; junior standing or consent of instructor.
99:143(g). Archseoloty of the Old World - 3 hrs .
Traces the prehistory of Africa, Asia, Europe, and Australia from the dawn of humanity to the civilizations of Egypt, the Indus Valley, Mesopotamia, and China. Emphasis also on the prehistory of simple hunter-gatherer cultures in the Old World. Prerequisite: 99:010; junior standing or consent of instructor.

## 99:145. Research Experience in Anthropology - $1-3 \mathrm{hrs}$.

Research participation and/or independent supervised research in anthropology. Prerequisites: 15 hrs . in anthropology and consent of instructor. May be repeated for up to 6 hours of credit.
99:151. Biomedical Anthropoloy - 3 hrs .
Human evolution and adaptation. Analysis of human fossils, human genetics, and present-day biological diversity. Prerequisite: 99:010 or consent of instructor.
99:152(g). Human Variability - 3 hrs.
Methods of determining biological similarities and differences in human populations; anthropometric techniques to analyze human blood groups, gene markers, dental configurations, dermatoglyphics and human races. Prerequisites: junior standing and 99:010 or consent of instructor.
99:153(g). Primate Behavior - 3 hrs.
Introduction to the social behavior and ecology of prosimians, monkeys and apes. Although laboratory and zoo studies will be covered, the emphasis will be on primate behavior in natural settings. Prerequisites: 99:010; junior standing or consent of instructor.
99:160(g). Paychological Anthropolo 3 hrs.
Psychological dimensions of sociocultural systems considered from a crosscultural perspective. Topics include historical development of the field; relationships between culture and personality; cognitive anthropology; cultural variations in conceptions of self, sex roles and sexuality, mental disorders, and therapy; deviance and the sociocultural context. Prerequisites: 99:011; junior standing or consent of instructor.
99:161(g). Religion, Made, and Witchernft - 3 hrs.
Anthropological understanding of behavior dealing with the supematural; supernatural beliefs, practices, and movements throughout the world. Prerequisite: 99:011 or consent of instructor. (Same as $64: 161$. )

99:162. Politics, Law and Culture; Cross-Cultural Perspective - 3 hrs. A comparative approach to the study of politics and law in socio-cultural contexts. Political and legal institutions, systems and processes are considered based on case studies from selected cultures. The focus is on traditional cultures. Prerequisites: 99:011 or $98: 058$; junior standing or consent of instructor. (Same as 98:162.)

## 99:163(g). Social Organization of Primitive Peoples - 3 hrs.

Varieties of social structure in selected nonliterate societies. Role of kinship, age, sex, emvironment, economics and religion in determining relations between individuals and groups. Prerequisites: 99:011; junior standing or consent of instructor.
99:165. Underdevelopment, Development, and Change - 3 hrs .
Definitions and theories of underdevelopment applied to social formations of the Third World and subcultural groups of the United States. Considers poverty, peasant conservatism, development and change strategies. Prerequisite: 99:011 or consent of instructor.
99:166. Ethnic and Race Relations - 3 hrs.
Current problems relating to race and ethnicity in both underdeveloped and developed societies. Prerequisite: 99:011 or consent of instructor.
99:167(g). Urban Soclety and Culture - 3 hrs.
An analysis of the nature, causes and consequences of urbanization in crosscultural perspective; urban structures, characteristics and processes of urban adaptation. Prerequisite: 99:011 or 98:058 or consent of instructor. (Same as 98:110(g).)
99:168(d). Culture, Disease, and Healing - 3 hrs.
Cross-cultural consideration of cultural, biological, and ecological factors in disease and health; including disease and evolution, folk healers and nonwestern medical systems and health care systems in the U.S. Prerequisites: 99:011 or 98:058; junior standing or consent of instructor. (Same as 98:168(g).)
99:169(g). Drus Use and Abuse in Cross-Cultural Perspective - 3 hrs.
A biocultural approach to use of alcohol, hallucinogens, marijtyana, opium and other drugs in selected societies. Topics include relationships between druginduced states and deviant behavior, socio-cultural factors and addictive states, criminialization of drug use in U.S., and implications of cross-cultural perspective for prevention and treatment of drug abuse. Prerequisites: 99:011 or 98:058; junior standing or consent of instructor. (Same as 98:169(g).)
99:171(g). Methods in Archseoloty - 3 hrs.
Archaeological field and laboratory techniques: including both methodological and theoretical aspects. Prerequisites: 99:010; and 3 hours of 100-level archaeology credit or consent of instructor.
99:172. Archmeological Fieldwort - 3-8 hrs.
Field school: introduction to field research techniques (survey, excavation, mapping), laboratory processing, and hypothesis testing. Conducted in the field. Prerequisites: 99:010 and consent of instructor.

## 99:174(g). Ethnographic Interviewing - 3 hrs .

Practical application of qualitative techniques in the Social Science interview; includes construction of descriptive questions, domain analysis, taxonomic and componential analysis. Prerequisites: 98:058 or 99:011; junior standing or consent of instructor. (Same as $98: 174(\mathrm{~g})$.)
$99: 176(\mathrm{~g})$. Anthropological Theory - 3 hrs .
Major theoretical developments in anthropology, including both historical and contemporary schools and trends. Prerequisites: 99:011 and junior standing or consent of instructor
99:178. Ethnographic Research Methods - 3 hrs.
The development and application of the qualitative descriptive and analytic techniques used in ethnographic research. Prerequisites: 99:011 or 98:058; consent of instructor.
99:180(g). Seminar in Anthropoloy - 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. Prerequisite: junior standing; prerequisites will vary with the topic. (May be repeated for credit.)

99:184. Experience in Applied Anthropology - 3-6 hrs.
Work experience in applied anthropology. Requires prior consultation with instructor. Prerequisites: 12 hours in anthropology and consent of instructor Must be taken on ungraded (credit/no credit) basis.

## 99:189(g). Readings to Anthropoloty - $1-3 \mathrm{hrs}$.

Prerequisites: 9 hours in anthropology, junior standing or consent of instructoc and departmental permission. May be repeated only with permission of department.
99:198. Independent Study.

## State Board of Regents

Officers of the Board:
John C. McDonald, President Dallas Center
R. Wayne Richey, Executive Secretary Des Moines

Members of the Board:
Terms expire June 1987

Terms expire June 1989

Terms expire June 1991

Peg Anderson, Bettendorf John McDonald, Dallas Center June Murphy, Des Moines Charles Duchen, Des Moines Percy G. Harris, Cedar Rapids Bass Van Gilst, Oskaloosa
John M. Greig, Estherville James R. Tyler, Atlantic Jacklyn K. Van Ekeren, Monroe

## Administrative Staff

## 1985-1986 <br> Officers of Administration

Constanttne W. Curris - BA., University of Kentucky; MA., University of Illinois; Ed.D., University of Kentucky
President of the University
Professor of Education - 1983*
James G. Martin - BA., MA., Indiana State College; Ph.D. Indiana University
Vice-President and Provost
Professor of Sociology - 1971
Sue E. Folion - B.S., Iowa Wesleyan College; M.A., University of Northern Iowa; Ed.D., Drake University
Vice President for Educational and Student Services - 1985
John E. Conner - B.S., University of Illinois; MA., Western Illinois University
Vice President for Administration and Finance - 1984
Edward V. Voldseth - BA., University of Montana; MA., Teachers College, Columbia University; Ph.D., University of Iowa
Assistant to the President for State Relations and Special Events - 1964 (1977)
*A single date following the title indicates the beginning of service at this university. If two dates are given, the first indicates the incumbents first appointment to a position and the second (in parentheses) the beginning of service in the present capacity.

## Office of the President

Dorts L. Miller - BA., University of Northern lowa
Administrative Assistant - 1949 (1965)

## Affirmative Action Office

Marlyn D. S. Montetro - BA., University of Massachusetts; Ed.M., Ed.D., Harvard University
Director of Affirmative Action Programs
Adjunct Assistant Professor of Education - 1983

## Office of Planning and Policy Management

Richard H. Stunchfield - B.A., Colby Colfege; M.A., University of Maine, Orono; Ph.D., University of Idaho; M.B.A., Murray State University
Director, Planning and Policy Management - 1983

## Office of Admissions

Jact L. Whelenga - BA., MA., Ed.S., University of Northem Iowa Director of Admissions - 1959 (1972)
Charisse L. Brown - BA., University of Northem Iowa
Admissions/Financial Aids Representative - 1984 (1985)
Lymne A. Green - BA., University of Northern Iowa Admissions Counselor - 1983
Dennis L. Hendrickson - B.A., M.A., University of Northern lowa
Associate Director of Admissions - 1971 (1974)
Noreen M. Hermansen - B.S., Oklahoma College of Liberal Arts; M.A., University of Northem Iowa
Associate Director of Admissions - High School/Campus Relations - 1968 (1978)

Germana P. Nifim - BA., College of St. Catherine; M.A., University of Rhode Isiand
Foreign Student Adviser - 1970 (1978)
Daniel J. Schofield - BA., University of Northern Iowa
Admissions Counselor - 1985
Donald G. Scoles-B.A., University of Northern Iowa; M.A.T. Harding University; D.A., Middle Tennessee State University
Assistant Director of Admissions - Transfer Relations - 1983
Aluinni Relations
Ellen (Elly) Stettler Leslie - B.A., University of Northern Iowa Director of Alumni Relations
Executive Director of the UNI Alumni Association - 1976 (1985)

## Office of Development

William D. Calhoun, Jr. - B.A., Hiram College, Ohio; M.A., University of Northern Iowa
Director of Development - 1981 (1985)
L.M. (Lee) Miller - BA., University of Northern Iowa

Director of Planned Giving - 1971 (1985)
Steven F. Schmit - BA., MA., University of Northern Iowa
Director of Athletic Development - 1985
Dee Vandeventer - B.S., Iowa State University
Director of Annual Giving - 1985

## Institutional Research

${ }^{\text {-G }}$ Gerald D. Btabey - B.A., University of Northern Iowa; M.S., Iowa State University; Ph.D., University of Iowa
Coordinator of Institutional Studies - 1964 (1984)
Office of Public Information Services
Donald A. Kelly - BA., M.A., University of Iowa
Director of Public Information Services - 1964 (1971)
Laurn L. Amick - BA., University of Iowa
News Writer - 1982
Susan Metz Chilcott - BA., Midland Lutheran College, Nebraska; MA., Creighton University
Publications Administrator - 1976
Vich S. Grimes - B.A., University of Iowa

## Assistant Director

News Editor - 1970 (1972)
Elimbeth Conrad LaVelle - BA., Lawrence University, Wisconsin; M.A., Western Michigan University
Publications Designer - 1977 (1979)
Debra Blake Lenius - BA., University of Northern Iowa
Assistant Publications Administrator - 1983
*Regular graduate faculty member.

## Division of Instruction

## Division Administration

James G. Martin - B.A., M.A., Indiana State College; Ph.D., Indiana University Vice President and Provost
Professor of Sociology — 1971
Patricia L. Geadelmann - BA., University of Northern Iowa; M.A., University of Iowa; Ed.D., University of North Carolina
Assistant Vice President, Academic Affairs Professor of Physical Education - 1972 (1984)
Charles L. Means - B.S., Southern Illinois University; M.A., Webster College; Ph.D., St. Louis University
Assistant Vice President for Academic Affairs for EOP/SCS
Adjunct Associate Professor of Education - 1983
Fred D. Carver - BA., Aurora College; M.S., Ph.D., University of WisconsinMadison
Dean of the College of Education
Professor of Educational Administration - 1981
John C. Downey - B.S., M.S., University of Utah; Ph.D., University of California, Davis
Dean of the Graduate College
Professor of Biology - 1968 (1981)
Glenn L. Hansen - B.A., M.A., University of Northern Iowa; Ph.D., Texas A \& M University
Dean, Division of Continuing Education and Special Programs
Associate Professor of Business Education - 1964 (1982)
Donald O. Rod - B.A., Luther College; A.B.L.S., University of Michigan
Director of Library Services
Professor of Library Science - 1953 (1966)

Rey H. Sadpo - BA., University of California, Davis; Ph.D., Oregon State University
Dean of the College of Natural Sciences
Professor of Biology - 1984
Jerry D. Stockdale - B.S., M.S., Ph.D., Iowa State University
Acting Dean of the College of Social and Behavioral Sciences
Professor of Sociology - 1973 (1985)
Thomas H. Thompson - B.A., M.A., Ph.D., University of Iowa
Dean of the College of Humanities and Fine Arts
Professor of Philosophy - 1952 (1981)
Robert J. Waller, Jr - B.A., M.A., University of Northern lowa; D.B.A., Indiana University
Dean of the School of Business
Professor of Management - 1968 (1980)

## Office of the Vice President and Provost

Donna M. Cornils
Administrative Assistant - 1966 (1974)
Academic Computing Services
James L. Wolf - B.S., M.S., University of Dayton; Ph.D., Iowa State University Director, Academic Computing Services - 1974 (1977)
Kenneth Connelly - B.A., University of Northern Iowa
Programmer/Analyst - 1983
Steven Y. Moon - BA., University of Northern Iowa; M.S., University of Iowa Assistant Director, Academic Computing Services - 1979 (198)
Diane C. Sullivan - BA., University of Northern lowa Systems Analyst - 1980 (198)

## Terry A. Ward

Programmer/Analyst - 1981

## Continuing Education and Special Programs

James Bodenstenner - B.A., Loras Collese; M.A., Ed.S., University of Northern Iowa; Ed.D., Drake University
Director of Credit Programs - 1983
Nancy Bramhall - BA., University of Northern Iowa
Director of Individual Studies - 1980 (1981)
Thomas W. Hansmeier - B.A., M.A., University of Northern Iowa; Ed.D., Michigan State University
Coordinator of Continuing Education, College of Education
Professor of Education - 1971 (1984)
Virginh L. Hash - B.S., Iowa State University; MA., Ed.S., University of Northern Iowa; Ph.D., Iowa State University
Associate Dean, University Continuing Education and Special Programs
Associate Professor of Education - 1966 (1983)
Aurelia L. Klink - BA., M.A., University of Northern Iowa
Director of Non-Credit Programs
Assistant Professor of Information Management - 1966 (1985)

## Department of Military Science

Gary L. Adam - B.S., University of Utah; M.B.A., Utah State University
Major-Commandandt of Cadets
Associate Professor of Military Science - 1984
Dian E. Bhum - B.S., University of Idaho; M.S., University of Southern California
Captain
Assistant Professor of Military Science - 1985
Krity R. Brown - B.S., Kansas State College of Pittsburg; M.S., Pittsburg State University
Captain
Assistant Professor of Military Science - 1985
Louis J. Cassi - B.S., York College, Pennsylvania; MA., Ball State University
Captain
Assistant Professor of Military Science - 1985
Thomas L. Goforth
Master Sergeant
Senior Instructor - 1984

Roger W. Lewson - B.S., University of Iowa; M.A., University of Missouri Leutenant Colonel
Head of the Department of Military Science
Professor of Military Science - 1983

## Richard W. Sullivan

Staff Sergeant
Administration NCO - 1985
Museum
Ronald C. Wilson - BA., MA., University of Kentucky
Director/Curator, Museum - 1984

## Educational Media Center

Robert R. Hardman - B.S.Ed., Maryland State Teacher's College; M.S., Ed.D., Indiana University
Director of the Educational Media Center
Professor of Educational Media - 1970 (1974)
Dougles E. Crowell - BA., University of Northern Iowa
Television Producer/Director - 1982 (1984)
Robert Eller - BA., M.A., University of Iowa
Coordinator of Audio-Visual Services
Assistant Professor of Education - 1960 (1966)
Tery D. Gero - BA., M.S., Southern Illinois University Coordinator of Graphic and Photographic Services
Adjunct Instructor of Education - 1973 (1983)
Sandra. J. Hendrickson - BA., MA., University of Northern Iowa
Operations Manager, Graphic and Photographic Services
Adjunct Instructor of Education - 1984
Nancy A. Hinshaw - BA., MA., University of Northern Iowa
Coordinator of Slide and Multi-Image Services
Adjunct Instructor of Education - 1974 (1978)
Joseph J. Marchesani - BA., Fordham University; M.S., Brooklyn College; M.Ed., Temple University

Coordinator of Television Services
Assistant Professor of Education - 1972
Emrys L. Pugh - Television Electronics, Delfy Technical Institute
Senior Television Engineer - 1979
Dennis B. Reimer - B.A., M.A., University of Northern Iowa Television Producer/Director - 1967 (1973)

## Educational Opportunity Programs and Special Community Services

JoAnn Anderson - B.A., Luther College
Academic Adviser/Recruitment Coordinator - 1979 (1983)
DeDe Brame-Wood - BA., Rosary College
Academic Adviser - 1980
Gregory H. Cutler - B.A., M.A., University of Northem Iowa Program Evaluator - 1985
Richard A. Frye - B.L.S., M.A., Bowling Green State University
Director, Special Services - 1985
Jay T. Hairston - BA., Ohio Wesleyan University; M.S., Bowling Green State University
Coordinator, Ethnic Minorities Cultural and Educational Center - 1985
Jull M. Johnson - BA., M.S.W., University of Iowa
Coordinator of Counseling Services, Educational Talent Search - 1985
Karen McNell - B.A., Lincoln University; MA., University of Northem lowa Assistant Director, Ethnic Minorities Cultural and Educational Center - 1981 (1984)

Kathy Meyers - BA., University of Northem Iowa
Career Development/Recruitment Adviser; Educational Talent Search - 1985
Inea Murtha - B.A., University of Northern Iowa
Assistant Director, Center for Urban Education - 1969 (1982)
Lor A. Powell - B.A., University of Northern Iowa
Head Start Center Coordinator/Teacher, Center for Urban Education - 1984
Agatha J. Roberts-Kohn - B.S., Kutztown State College; M.A., LeHigh University

Anthony Stevens - B.A., Wartburg College; M.A., University of Northem Iowa Director, Educational Talent Search - 1972 (1985)
Jan I. Smith - B.S., Lincoln University
Adviser, Persona/Financial Aid, Educational Talent Search - 1985
Michael G. Thomas - BA., MA., University of Northem Iowa
Counseling Coordinator, Special Services - 1984
Juanita P. Wright - BA., University of Northern Iowa
Acting Assistant Director, Educational Opportunity Program - 1975 (1983)

## School of Business

## Betty L. Anderson

Administrative Assistant and Supervisor, Word Processing Center - 1976
Linda A. Corbin - BA., University of Northern Iowa
Coordinator, School of Business Services - 1981 (1984)

## College of Education

## Curriculum Laboratory

Cynthin R. Cummings - BA., University of Northem Iowa Coordinator - 1970 (1984)
Julle K. Willinson - BA., MA., Drake University
Materials Coordinator - 1980 (1985)

## Day Care Center

Deborah Burk-B.S., Northwest Missouri State University; M.A.E., University of Northem Iowa
Coordinator of the Day Care Center - 1985
Kimberly Hummel - BA., University of Northern Iowa
Assistant to the Coordinator of the Day Care Center - 1985
School of Health, Physical Education, and Recreation
Kurtis C. Kidd - B.S., M.A., Brigham Young University
Assistant Athletic Trainer - 1985
Timothy Howard Klatt - BA., Central University of Iowa; M.A., University of Northern lowa
Assistant Intramural Director - 1983 (1985)
Tery G. Noonan - B.A., Loras College; M.S., Eastern Kentucky University Assistant Athletic Trainer, Acting Head Trainer - 1982 (1985)
Michelle E. Sandrey - B.S., Kent State University; M.S., Indiana State University
Assistant Athletic Trainer - 1985
Mona C. Smith - R.N., St. Luke's School of Nursing, Utica, New York; B.A., University of Northem Iowa
Assistant to the Director, Cardiac Rehabilitation - 1981 (1983)G

## Department of Special Education

Janet K. Doud - BA., University of Northern Iowa
Supervisor, Northern Iowa Instructional Laboratory
Harriet A. Healy - B.S., The College of St. Catherine; MA.E., Ed.S., University of Northem Iowa
Administrator, Northern Iowa Instructional Laboratory - 1973 (1977)

## Department of Teaching

Susan Flemr - R.N., Northwestern University; R.S.N., Wittenberg University School Nurse, Malcolm Price Laboratory School - 1979

## College of Humanities and Fine Arts

## Gallery of Art

Daniel Stetson - B.A., Potsdam College of Arts and Sciences, New York; M.FA., Syracuse University
Gallery Director, Department of Art - 1981

## Broadcasting Services

Douglas L. Vernier - BA., MA., University of Michigan
Director of Broadcasting Services
Assistant Professor of Radio-Tlelevision - 1972
Laura S. Behrens - BA., MA.PA., University of Iowa
Senior Producer - 1985
Carol Y. Cooper - B.S., East Texas State University Producer/Announcer - 1980
Julte Englander - BA., University of Iowa
Producer/Announcer - 1982
Peter S. Hamlin - BA., Middlebury College
Senior Producer - 1980
Dwid E. Hase-AA., North lowa Area Community College; AA. S., Iowa Central Community College
Public Information Coordinator - 1979 (1985)
Whyne N. Jarvis - BA., University of Northern lowa
Senior Producer - 1973
Cart R. Jenlins - BA. MA., University of Northern Iowa
Assistant Director of Broadcasting/Programming - 1962 (1976)
Shelton L. Jones - B.FA., California Institute of the Arts Senior Producer - 1983
Thomas Kscmarynuld - BA., University of Northern lowa Radio Events Producer - 1985
Jons C. Olsson - B.A., Thiel College, Greenville, Pennsylvania
Assistant Director of Broadcasting/Development - 1978
Patricia A. Othoff-Blank - BA., University of Northern Iowa Producer/Announcer - 1984
Diane M. Winkey - BA., University of Northern Iowa Development Associate - 1984
Department of Communication and Theatre Arts
W. Douglas Blicide - B.A., SUNY - Fredonia; M.FA., Syracuse University Theatre Technician - 1985
Henry G. Knerr - B.A., Lycombing College; M.FA, Penn State University
Business Manager and Publicist - 1984

## Department of Modern Languages

Hildegard Morales Cormez - Bachillerato en Biologla, Universidad de Chile; BA., Universidad de Chile; MA., University of Northern Iowa
Administrative Assistant for the Psycho-Generative Instructional Program 1985

## School of Music

Robert Byrnes - B.A., M.A., University of Northern Iowa
Adjunct Instructor of Choral Music
Administrative Assistant
University Carillonneur - 1974 (1981)

## College of Natural Sciences

## Department of Biology

Ron D. Camanta
Biology Greenhouse and Preserves Manager - 1968

## Graduate College

Ruth E. Ratliff - BA., St. Olaf College; MA., University of Iowa
Assistant to the Dean for Faculty and Grants Services - 1976
In Tolbert - B.A., Huston-Tillotson College; M.S., State University of New York at Albany
Assistant to the Dean for Student Services - 1976 (1980)

# University Library 

Cosla E. McCann - BA., University of Northern lowa Library Associate, Circulation - 1964
Timothy E. Pieper - BA., University of Northern Iowa
Library Associate, Circulation - 1975
June S. Starebers - Ed. B., University of Hawaii; M.A., Columbia University; M.A., University of Northem Iowa

Library Associate, Cataloging - 1973
Della Tyylor - BA., University of Northern lowa
Library Associate, Acquisitions - 1956
Sandra Whrner - BA., Western Illinois University
Library Associate, Acquisitions - 1981

## Division of Educational and Student Services <br> Division Administration

Sue E. Follon-B.S., Iowa Wesleyan College; MA., University of Northern Iowa; Ed.D., Drake University
Vice President for Educational and Student Services - 1985
Thomas P. Romanin - B.S., MA, Kent State University; Ph.D., St. Louis University
Associate Vice-President for Educational and Student Services - 1976 (1980)
Office of the Vice President for Educational and Student Services
Newans J. Kapler
Administrative Assistant - 1970 (1971)
Academic Advising Services
*Janice F. Abel - B.M.E., M.M.E., Drake University; Ed.D., Indiana University Director of Academic Advising Services - 1972 (1977)
Regtnald J. Green - BA., Luther College; MA., University of Northern lowa Assistant Director, Academic Advising Services - 1974 (1977)
Jean Nelbauer - BA., Mercy College of Detroit; MA., University of Northern lowa
Assistant Director of Academic Advising Services - 1983 (1985)
Martha Stephenson - BA., Meredith College, Raleigh, North Carolina; M.Ed., North Carolina State University
Academic Adviser - 1985
*Regular graduate faculty member

## Counseling, Placement, and Career Services

Lany R. Routh - BA., Kearney State College; M.S., Ph.D., University of Kansas
Director of Counseling, Placement, and Career Services - 1973 (1979)
Joyce E. Alberts - BA, MA., University of Northem Iowa
Counselor - Counseling Center - 1968
Evelyn D. Barron - B.A., Iowa State University; MA., University of Northern lowa
Cooperative Education Placement Coordinator - 1976
Patricis A. Bassett - BA., University of Northern Iowa; MA., Ph.D., University of lowa
Liberal Arts Placement Director - 1979
Sherry D. Candee - BA., MA., University of Iowa
Career Information Specialist - Career Center - 1977 (1979)
JoAnn C. Cummings - BA., MA., University of Northern Colorado
Counselor and Coordinator: Counseling Program for Adult Students - 1963 (1972)

Martin E. Edwards - B.S., MA., Central Michigan University; Ph.D., North Texas State University
Counselor/Psychologist - Counseling Center - 1973

Kenneth E. Jscobsen - B.A., Dana College; M.C., Arizona State University Career Services Coordinator - Career Center - 1979
Alhn J. Stambery - B.S., Western Michigan University; M.A, Appalachian State University
Cooperative Education Director - 1976
Lary M. Stemhauser - B.S., Towson State University; M.S., Ph.D., Southern Illinois University
Counselor/Handicapped Student Services Coordinator - 1983
Norman L. Story - B.A., David Lipscomb College; M.A., Western Michigan University; Ph.D., California School of Professional Psychology
Clinical Psychologist, Counseling Center Director - 1968 (1981)
Margaret Kocean Whshut - B.L.S., University of Northern Iowa
Program Associate - Education Placement - 1983 (1984)
Donald D. Wood - BA., MA., University of Northern Iowa
Education Placement Director - 1980 (1981)
Financial Aids and Student Employment Office
Ynacy Beavers - BA. MA., New Mexico Highlands University
Director of Financial Aids - 1975 (1984)
Samuel L. Barr - BA., Simpson College
Financial Aids Specialist - 1985
Judith O. Decker - BA., MA., University of Northern Iowa
Assistant Director - 1979 (1985)
Poul H. Fellix - BA., Augustana College; MA., University of Northern Iowa Financial Aids Counselor - 1985
Brian S. Will - BA., University of Northern Iowa
Financial Aids Counselor/Coordinator - 1982 (1985)
Office of Learning and Instruction
Wayne A. Kins - BA., State University of New York at Plattsburgh; M.A, Ph.D., University of Michigan
Director of the Learning Skills Center
Adjunct Assistant Professor of Education - 1978 (1983)
Karen S. Agee - A.B., A.M., Indiana University; Ph.D., New Mexico State University
Reading/Learning Specialist - 1984
Anne C. Johnstome-BA.; Pennsylvania State University; M.A., St. Bonaventure University
Writing Specialist - 1983
Kent M. Meyers - BA., University of Minnesota; MA, Washington State University
Writing Specialist - 1984

## Maucker University Union

John F. Retter - B.S., George Williams College; M.A. The Ohio State University Director of Maucker Union/Student Activities - 1967 (1974)
Jumes A. Dittrich - BA., Winona State University; MA., M.S., Mankato State University
Assistant Director - Business and Student Activities - 1982 (1985)
Gregory R. Hambleton - B.A, Western Kentucky University; M.FA., University of lowa
Technical and Operations Director - 1980
Janice M. Hanish - BA., MA. University of Northern Iowa
Program Director - 1977 (1985)
Nancy J. Osborne - B.A, University of Northern lowa
Coordinator of Student Organizations - 1985
Office of the Registrar
Robert D. Leahy - B.S., Valparaiso University, Indiana; MA., University of Iowa Registrar - 1976 (1978)

## Mary E. Engen

Associate Registrar, Scheduling - 1967 (1979)
Philip L. Patton - B.A., M.A., University of Northern lowa
Associate Registrar, Systems - 1972 (1978)

## Residence System

Clark K. Elmer - BA., University of Michigan; MA., Michigan State University Director of Residence - 1972 (1980)
Brtan F. Atchison - BA., St. Xavier College; M.A, Western Michigan University Hall Coordinator - 1985
Gary C. Daters - B.A., University of Northern Iowa
Residence System Business Manager - 1973 (1978)
Margaret J. Emple - B.S., University of Wisconsin, Stout
Assistant Food Unit Manager - 1980
Jane B. Fero-B.A., M.A, Bowling Green State University; Specialist Certificate, University of Akron, Ohio
Manager, University Apartments - 1983
Elise A. Prohn
Assistant Food Unit Manager - 1963 (1982)
Rebeca J. Gandt - BA., MA., Northeast Missouri State
Hall Coordinator - 1983
Dankel John Cleisener - B.S., University of Wisconsin, Stevens Point; M.A., Ball State University
Assistant Director of Residence/Facilities - 1980
Ree B. Guillermo - BA, University of Northern Iowa Assistant Food Unit Manager - 1985
Elizabeth J. Hageman - BA., University of Northern lowa Assistant Food Unit Manager - 1985
Robert A. Hartman - B.S., M.A., Ball State University
Associate Director of Residence/Housing - 1977 (1980)
Merle V. Huber - A.A.S., Iowa State University
Food Unit Manager - 1976
Shelly L. Ingram - BA., Augustana College, Rock Island, Illinois; M.S., Western Illinois University, Macomb
Hall Coordinator - 1985
Judith L. Johneon - BA., Miami University, Oxford, Ohio; M.Ed., University of Vermont
Hall Coordinator - 1985
Susan Jorsensen - BA. University of Northern lowa
Food Unit Manager — 1982 (1984)
Julaine R. Kiehn - B.S., M.S., Iowa State University
Food Unit Manager - 1981
Matthew John Madsen - BA., Loras College; MA., University of Iowa
Hall Coordinator - 1985
Drake E. Marthn - B.J., University of Texas, Austin; M.A, Bowling Green State University, Ohio
Coordinator of Residence Hall Programs - 1981
Nancy Nelson MeGrew - B.S., University of Wisconsin, Stout
Food Stores Manager - 1985
Ramona K. Milius - BA, University of Northern lowa
Food Unit Manager - 1980
Jennifer Olson - B.S., North Dakota State University
Assistant Food Unit Manager - 1983
Joanne D. Rousculp - BA., Ed.S., University of Florida Hall Coordinator - 1984
R. Kent Ruly - B.S., Northwest Missouri State University

Focus Coordinator - 1967 (1980)
Rosanne L. Sires - BA, University of Northern Iowa
Assistant Food Unit Manager - 1985
Kristin D. Stewart - B.A., MA., University of Northern lowa
Hall Coordinator - 1984
Bruce A. Tramer - BA., University of Wisconsin, Whitewater; MA. Adarns State College, Alamosa, Colorado
Hall Coordinator - 1984
Dorothy M. Van Helten - B.S., Iowa State University
Assistant Food Unit Manager - 1982
Rebecca N. Woodrick - BA., Millsaps College, Jackson, Mississippi; M.Ed., Oregon State University, Convallis
Hall Coordinator - 1985

Carolyn M. Young - B.A., University of Northern Iowa
Assistant Food Unit Manager - 1984
John S. Zahari - BA., Michigan State University
Associate Director of Residence/Dining Service - 1965 (1980)
Student Health Services
Robert L. Thjetech - B.S.C., M.HA., State University of Iowa; MA., University of Northern lowa
Administrator, Student Health Services - 1976
Phyllis A. Bolte - R.N., Broadlawns School of Nursing, Des Moines, Iowa
Staff Nurse - 1973
Kenneth W. Caldwell-B.S., Iowa Wesleyan, Mount Pleasant; M.D., University of Iowa
Staff Physician - 1977
Karla J. Fegley - B.S., Drake University
Pharmacist - 1982
Bruce E. Forystek - BA., St. Cloud State University; M.D., University of Minneapolis
Staff Physician - 1982
Eileen T. Jirak - R.N., Mercy School of Nursing, Dubuque, Iowa
Staff Nurse - 1977
Caryl L. Nielsen - R.N. Allen Lutheran School of Nursing, Waterloo, Iowa Staff Nurse - 1973
Patricis A. Peterson - R.N. Allen Lutheran School of Nursing, Waterloo, Iowa Staff Nurse - 1978
Paul D. Tenney - D.0. College of Osteopathy Medicine and Surgery, Des Moines, Iowa
Staff Physician - 1971 (1976)
Joan A. Thompron - L.P.N., Rochester School of Practical Nursing; BA., University of Northern Iowa
Health Educator - 1982

## Division of Administrative Services

## Division Administration

John E. Connor - B.S., University of Illinois; MA., Western Illinois University Vice President for Administration and Finance - 1984
Eunice A. Dell - BA., M.BA., University of Northem Iowa
Assistant to the Vice President for Administration and Finance - 1977 (1985)
Office of the Vice President for Administration and Finance
Darlyce A. Drum
Administrative Assistant - 1961 (1973)
Administrative Data Processing
L. Dale Hilliard - B.S.E.E., University of Iowa; M.S., Oklahoma State University Manager, Administrative Data Processing - 1979
Carolyn K. Braley - BA., Iowa State University; B.S., University of Iowa Senior Programmer Analyst - 1984 (1985)
Randal P. Deutmeyer - A.A.S., Kirkwood Community College
Progammer Analyst II - 1985
David C. Fanter - B.S., Augustana College
Data Base Administrator - 1978 (1985)
Roberta L. Fox - BA., University of Northem Iowa
Systems Analyst - 1976 (1983)
Maureen A. Furlong - AA., Eastern Iowa Community College
Programmer Analyst III - 1985
Doreen M. Hayek - BA., University of Northern lowa
Computer Coordinator/Liaison - 1984
Marcia A. Kruse - B.S., Iowa State University
Programmer Aralyst III - 1983 (1985)

Dennis R. Lindner - BA., Wartburg College Information Systems Coordinator - 1978 (1981)
Randall A. Maas - B.S., Iowa State University
Senior Systems Programmer - 1985
Thomas C. Peterson - B.S., Iowa State University Associate Director, Administrative Data Processing - 1982
Kevin Quarnstrom - BA., M.BA., University of Northern lowa Information Systems Coordinator - 1979 (1985)
Lyle A. Rasmussen - B.S., Iowa State University
Information Systems Coordinator - 1978 (1981)
Romeyn B. Sloan - B.S., University of lowa
Systems Analyst - 1980 (1985)
Merlin D. Thylor - BA. University of Northern Iowa
Assistant Director - Operations - 1966 (1967)
Daniel L. Whitmore - AA.S., Indian Hills Community College
Programmer Analyst III - 1982 (1985)
Administrative Services
Donald D. Greene - BA., University of Northem Iowa
Director, Administrative Services - 1975 (1984)

## Roxanne Conrad

Assistant Purchasing Agent - 1968 (1976)
Richand S. Douglas - A.B., J.D., Duke University; Ed.S., Rutgers University Graduate School of Education
Coordinator, Administrative Services - 1976 (1984)

## Budget Adminstration

James A. Stampp - B.BA., Kent State University; M.BA., State University of New York at Buffalo
Budget Administrator - 1976
Mary J. Prenosil - B.A., University of Iowa; M.B.A., University of Northern Iowa
Budget Aralyst - 1982 (1984)

## Campus Planning

Leland A. Thomson-BA., MA., University of Northem Iowa; Ed.D., University of Denver
Director of Campus Planning - 1968 (1981)
Paul E. Meyermann - B.S., lowa State University
Landscape Architect - 1985
Morrls E. Mildkelsen - B.Architecture, B.S., M.S., Iowa State University University Architect - 1983
C. George Pavelonis - B.S., Southern Illinois University

Coordinator of Interior Design Senvices - 1985
Mart W. Seely - BArchitecture, Auburn University
Architect/Planner - 1981

## Controller's Office

Gary B. Shontz - B.BA., University of Iowa; MA.E., Ed.S., University of Northern Iowa
Controller and University Secretary - 1974 (1976)
Edward M. Ebert - BA., MA., University of Northern Iowa
Grants and Contracts Administrator - 1977 (1985)
Ann L. George
Payroll Coordinator - 1974 (1984)
Ray G. Harris - BA., University of Northern Iowa Accountant - 1979 (1985)
Bruce A. Rieks - BA., University of Northern Iowa
Assistant Controller and Chief Accountant - 1979 (1985)
Barton G. Sheffer - B.S., University of Wisconsin
Bursar - 1979 (1985)

## Intercolleglate Athletics and UNI-Dome Administration

Robert A. Bowlshy - B.S., Moorhead State University; MA., University of Iowa Director of Athletics - 1981 (1984)
Indse Ahrali-Fard - BA., MA., University of Northem Iowa; Ph.D., University of Minnesota
Head Volleyball Coach — 1972 (1981)

Terry C. Allen - BA., University of Northern Iowa Assistant Foothall Coach — 1979
Meredith Baldey - B.S., Black Hills State College; M.A., Colorado State University
Instructor/Softball Coach — 1978
Janice M. Bittner - B.S., Valparaiso University; M.S., Illinois State University Assistant Volleyball Coach - 1982
Robert P. Bollss - BA., Iowa State University
Assistant Football Coach - 1985
Donald B. Briegs - BA., University of Iowa; M.A., University of Northern Iowa Head Wrestling Coach - 1972 (1982)
Julie A. Bright - BA., University of Northern Iowa
Athletic Business Manager - 1975 (1985)
Gene Bruhn - Doctor of Chiropractic, Palmer School of Chiropractic Assistant Softball Coach - 1982
Christopher Buctram - B.S., Norwich University; M.A., University of Northern Iowa
Head Track Coach — 1979 (1984)
Terri A. Cnft - A.A. North lowa Area Community College; B.A., Iowa State University
Assistant Women's Basketball Coach - 1981
James G. Hall - B.S., M.S., Eastern Illinois University
Instructor/Men's Swimming Coach - 1983
James K. Hancock - BA., University of Northern Iowa
Diving Coach - 1985
John A. Jermier - B.A., Coe College; MA., University of Iowa
Associate Athletics Director - External - 1980
Nancy A. Justis - BA., University of Iowa
Sports Information Director - 1974 (1979)
Robert Kincald - BA., Adams State College
Assistant Football Coach - 1983
Lynn Iting - BA., MA., University of Northern Iowa
Assistant Athletic Director - UNI-Dome Director - 1976 (1984)
Walter A. Klinker - B.S., University of Colorado
Assistant Football Coach - 1983
John J. Kriebs - BA., University of Northern Iowa
Assistant Wrestling Coach
Administrative Assistant/Dome - 1984
William T. Luwson - BA., University of Northern Iowa
Instructor/Assistant Track Coach - 1984
Michael P. Madsen - BA., Morningside College
Assistant Sports Information Director - 1984
Jeanette J. Marsh - B.S., Mankato State College; M.S., University of New Mexico; Ph.D., University of Minnesota
Assistant Professor/Golf Coach - 1975
Kimberly A. Mayden-B.S., Ball State University; M.S., Bemidji State University Head Women's Basketball Coach - 1984
Peter M. Mazula - B.S., University of New York; M.A., Ed.D., Columbia University
Professor/Tennis Coach - 1973
Gregory A. Merfeld - B.B.A., University of Iowa; M.S., Kansas State University UNI-Dome Ticket Manager - 1984
Eldon J. Miller - B.S., M.A., Whittenburg College, Springfield, Ohio
Men's Head Basketball Coach - 1986
James M. Miller - BA., University of Northern Iowa
Assistant Wrestling Coach - 1983
Darrell Mudra - B.S., Peru State College; M.S., University of Nebraska-Omaha; Ed.D., University of Northern Colorado
Head Football Coach - 1983
Terny G. Noonan - B.A., Loras College; M.S., Eastern Kentucky
Instructor/Acting Head Trainer - 1982 (1985)
Carol L. Phillips - B.S.C., Ohio State University; M.A.T., Washington State University; Ed.D., University of Northern Colorado
Assistant Professor/Head Women's Tennis Coach - 1975 (1984)

Dennis L. Remmert - B.A., M.A., University of Northern Iowa Instructor/Assistant Foothall Coach - 1964
Bill Salmon - BA., University of Northern lowa
Assistant Football Coach - 1984
Mark J. Saltz - BA., University of Northern Iowa
Assistant Foothall Coach - 1985
Michelle A. Sandrey - B.S., Kent State University; M.S., Indiana State University Instructor/Assistant Athletic Trainer - 1985
Steven F. Schmit - BA., MA.E., University of Northern Iowa Director of Athletic Development - 1985
LeaAnn Shaddox - BA., University of Northern Iowa; MA., University of Iowa Instructor/Head Track and Cross-Country Coach - 1985
Susun E. Stodghill - BA., MA., University of Califormia Instructor/Head Swimming Coach - 1983
Gary F. Swnnson - AA., Indian Hills Community College; BA., University of Northern Iowa
Head Baseball Coach - 1983
Paul D. Swanson - B.S., lowa State University; M.S., Northwestern University Assistant Basketbal! Coach - 1982
Dan Treger - B.S., Illinois State University; M.A., Roosevelt University
Assistant Basketball Coach - 1981
Patrict G. VnRossum - B.S., University of Wisconsin-LaCrosse; M.S., University of Tennessee
Instructor/Assistant Track and Cross-Country Coach - 1985
Sandra C. Williamson - B.S., M.S., Eastern New Mexico University; Ed.D., University of Northern Colorado
Associate Athletic Director - Internal - 1978 (1980)

## Personnel Services

John D. Mircell, Jx - B.S., Saint Lawrence University, New York; M.A., Webster College, Missouri
Personnel Director - 1979
Loren T. Allen - B.S., Iowa State University; M.A., University of lowa
Benefits Coordinator - 1982
Anth I. Dousherty - B.A., University of Northern Iowa
Interviewer/Analyst - 1984 (1985)
Jape Juhl Juchems - B.S., Iowa State University
Operations and Training Coordinator - 1979 (1984)
Judy S. Thielen - BA., University of Northern lowa
Employment Coordinator - 1979 (1984)
Joe W. Young — BA., Wartburg College, Waverly, Iowa; M.S.W., University of Iowa
Professional and Scientific Classification and Employment Manager - 1982 (1984)

## Physical Plant

## Administration

Thomas E. Peulson-B.S.C.E., University of North Dakota; B.S.BA., University of Minnesota; M.B.A., University of Northern Iowa
Physical Plant Director - 1974
Duane C. Anders - BA., University of Northern Iowa Associate Director, Maintenance and Operations - 1982 (1984)
James Nantz - B.A., University of Northern lowa
Manager, Operations and Administration - 1983 (1985)

## Bill Diercles

Manager, Work Planning — 1982 (1985)
Alvin Kyhal
Manager, Campus Services - 1971 (1985)
Lonnie Piper
Manager, Projects - 1981 (1985)
CustodialBill Mckłnley - BA., University of Northern IowaManager, Building Services - 1982 (1985)
Engineering ServicesBerwyn B. Johnson - B.S., Iowa State University
Mechanical Engineer - 1974
Thomas J. Richtsmeler - B.S., Iowa State UniversityAssistant Mechanical Engineer - 1982
David L. Walter - B.S., Iowa State University
Associate Director, Engineering Services - 1977
Grounds
Merie Hedt
Manager, Grounds Services - 1975 (1985)
Operations and Maintenance
Romild K. BLtelow
Manager, Maintenance and Operations - 1966 (1985)
Bob Cook
Manager, Electric Services - 1982 (1985)
Scott Hall - A.S., North Iowa Area Community College
Manager, Maintenance Services - 1977 (1985)
Darrell Hansen
Manager, Mechanical Services - 1982 (1985)
Plant Stores
Ken Nieman
Manager, Plant Stores - 1964 (1969)
Steve Cutsforth - BA., University of Northern lowa
Buyer/Coordinator - 1974 (1985)
Transportation
Robert Pipar
Manager, Transportation - 1952 (1980)
UtilitiesGlenn E. Holmes
Manager, Power Plant - 1953 (1980)
Arthur C.Johnson - A.A.S., Milwaukee School of Engineering
Manager, Utilities Distribution - 1967 (1984)
Daryl E. Stoner
Assistant Director, Utilities - 1979 (1984)
Public SafetyRollin G. Evers
Director, Public Safety - 1964
John D. Stalberter
Assistant Director, Public Safety — 1965 (1968)

## Emeritus Faculty

Ceorge G. Bell - B.S., MA., Kent State University; Ed.D., University of Wyoming
Professor of Education and Psychology - 1958 (1978)
Russell N. Baum - B.Mus., M.Mus., Eastman School of Music, University of Rochester
Professor of Piano - 1938 (1981)
Randall R. Bebb - B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa
Coordinator of Student Teaching - 1947 (1981)
Paul F. Bender - BA., University of Iowa; MA., Columbia Universily; Ed.D., New York University
Dean of Students - 1921 (1964)
Harold E. Bernhard - BA., Carthage College, Illinois; B.D., Chicago Lutheran Theological Seminary; Ph.D., University of Chicago
Director of the Bureau of Religious Activities
Professor of Religion - 1949 (1974)
Mildred E. Blackman-B.S., Northwest Missouri State College; M.Ed., University of Missouri
Assistant Professor of Teaching - 1948 (1977)
Mary E. Blapford - BA., Central Normal College, Indiana; M.S., Indiana University
Assistant Professor of Business Education and Administrative Management 1961 (1982)
David R. Bhuhm — BA., Princeton University; B.Th., Princeton Theological Seminary; MA., Ph.D., University of Pittsburgh
Professor of Philosophy and Religion - 1954 (1977)
Emil W. Bock - B.Mus, M.Mus., Northwestern University; Ph.D., University of Iowa
Professor of Music History - 1939 (1961)
E. Jean Bontz - BA., MA., Ph.D., University of Iowa

Professor of Physical Education for Women
Head of the Department of Physical Education for Women - 1949 (1972)
Emily Clere Brown - A.B., Ohio State University; MA. in Ed., Arizona State University; Ph.D., University of Arizona
Professor of History - 1966 (1976)
Lena P. Buckngham - B.S., Northeast Missouri State Teachers College; M.S., Iowa State University
Associate Professor of Home Economics - 1953 (1968)
Marjorie D. Campbell - B.Sc.Ed., MA., Ohio State University
Associate Professor of Art - 1949 (1979)
Henri L. Chabert - Lic. en Droit, Institut des Sciences Politiques; Bar ex (Paris); Lic es Lettres, Competitive exam du C.A. (Sorbonne) and of the U.N.; Doctorat de l'Université de Paris (Sorbonne)
Professor of French - 1961 (1983)
Theh-Cheng Chhn - BA., National Northeastern University, China; M.A., M.L.S., University of Washington; A.M.L.S., Florida State University
Associate Professor of Library Science
Bibliographer - 1971 (1985)
Elinor Ann Crawford - BA., MA., University of California, Berkeley; Ph.D., University of Oregon
Professor of Physical Education for Women
Head of the Department of Physical Education for Women — 1949 (1979)
Barbara J. Daring - BA., University of Northern Iowa; MA., University of Northem Colorado
Associate Professor of Physical Education - 1958 (1985)
David D. Delafield - B.FA., MA., Ph.D., Ohio State University
Professor of Art - 1951 (1982)
Gorion B. Denton - B.B.A., University of Texas; M.BA., University of Iowa Associate Professor of Marketing - 1965 (1980)

Margaret Divelbess - BA. Grinnell College; MA., Columbia University Associate Professor of Teaching - 1927 (1964)
Heary T. Dohrman - A.B., Nebraska State College; S.T.B., Ph.D., Harvard University
Professor of Sociology, Anthropology and Social Work - 1949 (1982)
William H. Dreier - B.S., Iowa State University; MA., Ph.D., University of Minnesota
Professor of Educational Psychology and Foundations - 1949 (1985)
Mary K. Eakin - BA., Drake University; B.L.B., MA., University of Chicago Associate Professor of Education - 1958 (1980)
Roy E. Eblen - BA., Williams College; MA., Wichita State University; Ph.D., University of Iowa
Professor of Speech Pathology - 1960 (1968)
Charlotte E. Eilers - BA., M.A., University of Northern lowa
Assistant Professor of Speech - 1965 (1979)
Manuel A. Febles - BA., B.S., Instituto de Cardenas, Cuba; Doctor in Law, Universidad de la Habana, Cuba; M.A., Ph.D., University of Iowa
Professor of Spanish - 1967 (1984)
Merrill F. Fink-BA., Central Michigan University; M.S., University of Michigan Registrar - 1946 (1978)
Louise C. T. Forest - B.A., M.A., Bryn Mawt College; Ph.D., Yale University
Professor of English - 1948 (1983)
Earnest C. Fossum - BA., Augustana College, South Dakota; MA., Ph.D., University of Iowa
Associate Professor of Speech
Director of the Placement Bureau - 1943 (1973)
Laura K. Glloley - B.S., MA., University of Minnesota
Associate Professor of Teaching - 1950 (1971)
Lewis E. Glenn - L.L.B., George Washington University
Associate Registrar, Scheduling - 1966 (1979)
Whlter J. Gohman-BA., St. Cloud State College, Minnesota; MA., University of Minnesota
Associate Professor of Teaching: Science - 1951 (1977)
Hary G. Guillaume - B.S., M.A., Ed.D., Columbia University
Professor of Art
Head of the Department of Art — (1948-1970) — 1948 (1981)
Elbert W. Hamilton - BA., Tarkio College; MA., Ph.D., University of Iowa
Professor of Mathematics
Head of the Department of Mathematics (1963-1976) — 1949 (1978)
Nellle D. Hampton - B.S., Central Missouri State University; MA., State University of Iowa; Ph.D., University of Wisconsin
Professor of Education - 1945 (1981)
Alden B. Hanson - B.A., St. Olaf College; M.Ph., University of Wisconsin
Associate Professor of English
Foreign Student Adviser - 1946 (1975)
William P. Happ, Jr - B.S., Northwestern University; M.S., Ph.D., University of lowa
Professor of Teaching - 1948 (1974)
Leta Norris Harmon - B.S., Central State College, Oklahoma; M.Ed., University of Oklahoma
Associate Professor of Teaching
Coordinator of Student Teaching - 1950 (1975)
Bernicc Helff - BA. University of Iowa; MA. Columbia University
Associate Professor of Teaching - 1942 (1972)
Clifford H. Herrold - BA., Central State University, Oklahoma; MA., Colorado State University; Ed. D., Stanford University
Professor of Art - 1947 (1978)

Emeritus Faculty

Olive J. Holliday - BA., University of Northern Iowa; MA., University of Illinois Associate Proiessor of Home Economics - 1949 (1974)
Telford F. Hollman - Ph.B., J.D., University of Chicago; L.L.M., John Marshall Law School; M.B.A., DePaul University
Professor of Business Law - 1968 (1973)
Mavis L. Holmes - B.A., MA., Ph.D., Northwestern University
Dean of Students - 1958 (1973)
Karl M. Holvik - BA., Concordia College; M.A., Eastman School of Music, University of Rochester; Ph.D., University of Iowa
Professor of Instrumental Conducting - 1947 (1965)
Donald E. Howard - B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa
Professor of History
Dean of the College of Business and Behavioral Sciences - (1968-1972) — 1947 (1977)

Ruth Hutcheson - BA., Nebraska State Teachers College, Peru; M.A., Colorado State College
Assistant Professor of Teaching - 1953 (1976)
Mary Ann Jackson - B.S., M.S., University of Arkansas
Assistant Professor of Teaching - 1953 (1982)
Phillip C. Jennings - B.S., M.S., Iowa State University
University Business Manager - 1942 (1977)
James W. Kercheval —BA., University of Northern Iowa; M.S., Ph.D., University of Iowa
Professor of Chemistry - 1949 (1972)
Howard T. Knutson - B.A., Luther College; MA.Ed., University of Wyoming Professor of Education
Director of Teacher Education
Dean of the College of Education - (1968-1976) - 1953 (1981)
Dorothy Mae Koehring - BA., Kansas State University; MA., Columbia University; Ph.D., Yale University
Professor of Education
Regional Training Program Officer (Director) for Project Head Start - 1933 (1973)
william C. Lang - BA., Yankton College; MA., Ph.D., University of Iowa
Professor of History
(Director of Teacher Education - 1959-1968)
Dean of Instruction and Dean of the College, Vice President of the College, Vice President of the University, Vice President for Academic Affairs - (1959-1970) - 1949 (1978)

Agnes Lebeda - B.A., Northwestern Oklahoma State University; M.S., Oklahoma State University; Ph.D., University of Minnesota
Professor of Management - 1953 (1981)
Fred W. Lott-A.B., B.S., Cedarville College; M.A., Ph.D., University of Michigan Professor of Mathematics
Assistant Vice President, Academic Affairs - (1971-1984) — 1949 (1984)
William Earnest Luck - B.S., M.S., Stout State University; Ed.D., Oklahoma State University
Professor of Industrial Technology - 1962 (1979)
Clifford G. McCollum - B.S., M.A., Ed.D., University of Missouri
Professor of Biology
Dean, College of Natural Sciences - (1968-1984) - 1949 (1984)
G. Douglas McDonald - B.S., University of Pennsylvania; M.S., University of Minnesota
Assistant Professor of Marketing - 1963 (1973)
Keith F. McKean - A.B., Williams College; MA., University of Chicago; Ph.D., University of Michigan
Professor of English
Head of the Department of English Language and Literature - (1968-1972) 1968 (1981)
Edna L. Mantor - BA., University of Iowa; MA., Columbia University
Associate Professor of Teaching - 1923 (1968)
William O. Maricle - B.Ed., University of Southern Illinois; M.A., University of Illinois; Ed.D., University of Colorado
Associate Professor of Teaching
Coordinator of Student Teaching - 1949 (1981)

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)
Charles D. Matheson - B.Mus., M.Mus., University of Michigan
Professor of Voice - 1955 (1982)
Jvone A. Maxwell - B.A., University of Northern Iowa; M.Mus., American Conservatory of Music
Associate Professor of Piano - 1940 (1978)
William K. Metcalfe - B.S., MA., Washington University, St. Louis; Ph.D., Syracuse University
Professor of Political Science - 1961 (1985)
Caryl A. Middleton - B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa
Professor of Teaching
Coordinator of Student Teaching - 1949 (1981)
Dorothy L. Moon - B.Ed., Northern Illinois University; M.A., Northwestern University
Associate Professor of Physical Education for Women - 1946 (1977)
Evelyn J. Mullins - B.A., Grinnell College, B.S.L.S., Columbia University
Order Librarian - 1930 (1971)
Robert L. Paulson - B.S., MA., University of Iowa
Associate Professor of Teaching: Educational Media - 1954 (1963)
Jeannette Rogers Potter Peterson - BA., University of Northern Iowa; M.S., University of Wisconsin; Ed.D., University of Oregon
Professor of Physical Education for Women - 1955 (1975)
Cecil Phillips - B.S., Southwest Missouri State College; M.Ed., Ed.D., University of Missouri
Professor of Teaching - 1948 (1982)
George R. Poage - B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa
Professor of History — 1954 (1982)
Williard J. Poppy - B.Ed., Wisconsin State University, Oshkosh; M.S., Ph.D., University of Iowa
Professor of Physics — 1949 (1975)
Albert A. Potter - BA., Nebraska State Teachers College; MA., University of Iowa
Associate Professor of Teaching: Science - 1946 (1978)
Joseph Prryychodzin - E.D., Southern Illinois University; M.A., University of Illinois; Ed.D., University of Missouri
Professor of Education - 1947 (1981)
Howard O. Reed - B.S., Bradley University; M.A., Northwestern University; M.Ed., Ed.D., University of Illinois

Professor of Industrial Arts
Head of the Department of Industrial Arts and Technology - 1954 (1971)
H. Willard Reninger - B.A., MA., Ph.D., University of Michigan

Professor of English
Head of the Department of English Language and Literature - 1939 (1968)
Gordon J. Rhum - B.A., Iowa Wesleyan College; M.A., Ph.D., University of Iowa
Professor of Education
Dean of Graduate College - (1970-1976) — 1948 (1985)
Ferdinand C. Riechmann - BA., MA., University of Iowa
Associate Professor of Teaching: Social Studies - 1960 (1971)
James B. Roberson - B.S., Middle Tennessee State Teachers College; M.A., George Peabody College for Teachers
Associate Professor of Teaching - 1964 (1984)
Betts A. Roth - B.S., George Peabody College for Teachers; M.A., Columbia University
Associate Professor of Teaching: Early Childhood Education - 1951 (1976)
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)
Ariene A. Ruthenberg - B.A., University of Northern Iowa; M.E., Wayne State University
Youth Collection Librarian and Assistant Professor - 1968 (1980)

Leland L. Saxe - B.A., Vanderbilt University; M.A., Ph.D., University of Illinois Professor of History - 1932 (1967)
Pauline Louise Sauer - B.Ed., Chicago Teachers College; MA., University of Michigan; Ph.D., Cornell University
Associate Professor of Biology
Director of the UNI Museum - 1949 (1981)
Mary M. Schmitt - BA., University of Northern Iowa; M.Ed., University of Minnesota
Associate Professor of Teaching - 1946 (1983)
Raymond J. Schlicher-B.A., Iowa Wesleyan College; M.A., Ph.D., University of Iowa
Dean of the Division of Extension and Continuing Education - 1949 (1980)
N. Marshall Schools - B.S., Mary Washington College; M.A., George Peabody College for Teachers
Associate Professor of Teaching; Physical Education - 1949 (1976)
Ruth Sevy - B.S., Central Missouri State University; MA., University of Northern Colorado
Associate Professor of Health, Physical Education and Recreation:Health - 1967 (1980)

Edna Anderson Shores - B.S., M.A., Teachers College of Columbia University
Assistant Professor of Home Economics - 1947 (1973)
Herbert M. Silvey—B.S., Central Missouri State College; M.A., Ed.D., University of Missouri
Director of the Bureau of Research and Examination Services - 1947 (1974)
Ina Mae Brown Silvey - B.S. in Ed., Central Missouri State College; M.A., University of Northern Iowa
Associate Professor of Mathematics -- 1954 (1978)
Ernestine L. Smith - BA., M.S., University of Michigan
Professor of Geography - 1936 (1973)
Francis E. Smith - BA., University of Massachusetts; M.A., Ph.D., University of lowa
Professor of English - 1950 (1979)
Miriam B. Smith - B.S., Northern State Teachers College, South Dakota; MA., Ph.D., University of Minnesota
Professor of Speech - 1947 (1982)
Eloise P. Soy - BA., MA., University of Northern Iowa
Assistant Professor of Teaching: Elementary Education - 1965 (1979)
Julia L. Sparrow - B.S., St. Cloud State College; MA., Ph.D., University of Iowa Professor of Education - 1944 (1975)

Myrtle M. Stone - B.A., Washington State University; M.BA., University of Washington; Ed.D., New York University
Professor of Teaching - 1928 (1966)
Marguirette May Struble - BA., M.A., Ph.D., University of Iowa
Professor of Teaching - 1924 (1969)
Betty M. Swanson - B.S., University of Minnesota; M.S., University of Southern California
Assistant Professor of Physical Education - 1949 (1985)
Nathan M. Talbott - BA., Western Michigan University; MA., University of Michigan; Ph.D., University of Washington
Professor of Political Science and East Asian Studies - 1956 (1982)
Loren F. Taylor - B.A., M.A., University of Iowa
Assistant Professor of English - 1954 (1979)
Wayne Palmer Truesdell - BA., University of Northern Iowa; MA., Ph.D., University of Iowa
Professor of Education - 1967 (1977)
Howard VanderBeek - BA., University of Iowa; M.A., Ed.D., Columbia University
Professor of Teaching - 1948 (1981)
Lillian R. Wagner - BA., University of South Dakota; MA., University of Iowa; Ph.D., University of Wisconsin
Professor of Speech - 1950 (1978)
Willis H. Wagner - B.S., Central Missouri State University; MA., University of Missouri
Professor of Industrial Technology — 1945 (1982)
Leland L. Wilson - B.S., Eastern Kentucky State University; M.S., University of Kentucky; Ph.D., George Peabody College for Teachers
Professor of Chemistry
Head of the Department of Chemistry - (1968-1975) - 1955 (1979)
Leonard P. Winier - B.S., Winona State College; MA., Ed.D., Columbia University
Professor of Biology - 1949 (1977)
Barbara Yager - B.S., M.A., The Ohio State University; Ed.D., University of Southern California
Professor of Physical Education - 1949 (1985)
Emily Josephine Yeager - B.S., Louisiana State University; M.S., University of Colorado
Assistant Professor of Home Economics - 1954 (1968)

# Instructional Staff 

## 1985-86

Constantine W. Curris - BA., University of Kentucky; MA., University of Illinois; Ed.D., University of Kentucky
President of the University
Professor of Education - 1983
*James G. Martin - B.A., M.A., Indiana State College; Ph.D., Indiana University Vice President and Provost
Professor of Sociology - 1971

## Faculty

*Fred J. Abraham - B.S., M.S., University of Wisconsin; M.A., Ph.D., University of Oregon
Associate Professor of Economics - 1973 (1978)
Ronald J. Abraham - B.B.A., M.B.A., University of Wisconsin, C.PA.
Assistant Professor of Accounting - 1974
Gary L. Adam - B.S., University of Utah; M.B.A., Utah State University
Major-Commandant of Cadets
Associate Professor of Military Science - 1984
*Charles M. Adelman - A.B., Brooklyn College; Ph.D., University of Chicago; Ph.D., University of Gothenburg, Sweden
Associate Professor of Art - 1983 (1985)
*Iradge Ahrabi-Fard - B.A., M.A., University of Northern Iowa; Ph.D., University of Minnesota
Professor of Physical Education - 1972 (1984)
Howard Aibel - B.S., M.S., Julliard School of Music
Professor of Piano - 1978 (1984)
*Iple K. Alberts - BA., 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 Iowa; Ed.D., Indiana University
Professor of Education - 1965 (1973)
John F. Aldrich - B.S., University of Rhode 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; Ph.D., Iowa State University
Associate Professor of Curriculum and Instruction: Early and Middle Childhood Education - 1967 (1981)
Don R. Allen - B.S., M.H.Ed., Brigham Young University
Instructor in Physical Education - 1984
*Edward W. Amend - B.A., Midland Lutheran College; M.Div., S.T.M., Lutheran School of Theology, Chicago; Ph.D., University of Chicago
Associate Professor of Religion and Humanities - 1967 (1972)
${ }^{*}$ B. Wylie Anderson - B.A., M.A., University of Northern Colorado; MA., University of Denver; Ph.D., University of Iowa
Professor of Economics
Head of the Department of Economics - 1966 (1976)
*Hale Anderson - B.A., M.A., University of Iowa; M.FA., Tyler School of Art, Temple University
Assistant Professor of Art - 1978
James D. Anderson - B.S., M.S., Eastern Illinois University
Assistant Professor of Physical Education - 1965 (1968)
*Ronald J. Anderson - B.A., M.A.T., Augustana College, South Dakota; Ph.D., University of North Carolina, Chapel Hill
Assistant Professor of Special Education - 1980
Ruth B. Anderson - BA., University of California, Berkeley; M.S.W., Columbia University School of Social Work
Associate Professor of Social Work - 1969 (1973)
"Wayne I. Anderson - BA., M.S., Ph.D., University of lowa
Professor of Geology
Head of the Department of Earth Science - 1963 (1972)
LaVerne W. Andreessen - B.A., M.A., University of Northern Iowa; C.PA. Assistant Professor of Accounting - 1980
*Jeanne E. Arnold - B.A., University of Michigan, Ann Arbor; M.A., Ph.D., University of California, Santa Barbara
Assistant Professor of Anthropology - 1984
Donald L. Ashbaugh - AA.A, Kirkwood Community College; B.A., University of Northern Iowa; M.S., University of Oregon
Assistant Professor of Management - 1980 (1985)
${ }^{*}$ C. Murray Austin - B.A., M.A., Ph.D., University of Pennsylvania
Associate Professor of Geography and Regional Science - 1973
Meredith J. Bakley - B.S., Black Hills State College; M.Ed., Colorado State University
Instructor in HPER: Physical Education - 1978
*Francisco X. Barrios - A.B., St. Louis University, Mo.; Ph.D., University of Cincinnati
Associate Professor of Psychology - 1979 (1983)
Thomas M. Barry - B.M.Ed., M.M., University of Colorado
Assistant Professor of Oboe and Saxophone - 1973 (1976)
*Clemens Bartollas - B.A., Davis and Elkins College; B.D., Princeton Theological Seminary; S.T.M., San Francisco Theological Seminary; Ph.D., Ohio State University
Professor of Sociology - 1981 (1985)
*Jackson N. Baty - B.A., Stanford University; M.A., Ed.S., University of Northern Iowa; Ed.D., Drake University
Assistant Professor of Education - 1971 (1974)
*Kenneth E. Baughman - B.A., Lawrence 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)
Walter E. Beck - B.M.E., Knox College; M.A., Ph.D., University of Illinois Assistant Professor of Computer Science - 1980
Caryl R. Becker - B.M.Ed., Oberlin Conservatory of Music; M.M., New England Conservatory of Music
Assistant Professor of Voice - 1969 (1973)
James Edward Becker - BA., Cornell College; MA., University of Paris (Sorbonne)
Associate Professor of Teaching: Foreign Language - 1970 (1985)
Judy Markham Beckman - B.S., M.A., University of Northern Iowa
Assistant Professor of Teaching: Language Arts - 1969 (1975)
Mary Green Beckman - B.Mus., Oberlin Conservatory of Music; M.M., Cleveland Institute of Music
Professor of Harp and Theory - 1947 (1977)
*Thomas R. Berg - B.S., MA., Ph.D., Ohio State University
Associate Professor of Education - 1972 (1980)
*Virginia A. Berg-B.S., Tufts University; M.S., Ph.D., University of Washington Assistant Professor of Biology - 1984
Gretta Berghammer - B.A., University of Wisconsin; M.FA., University of Texas Assistant Professor of Child Drama - 1984
*Barton L. Bergquist - B.S., North Park College; M.S., Northeastern Illinois University; Ph.D., University of Kansas
Assistant Professor of Biology - 1978
Maribelle O. Betterton - B.A., M.A., University of Northern Iowa Assistant Professor of Teaching: Elementary Education - 1973 (1976)
*M. Roger Betts - B.A., University of Northern Iowa; MA.E., Ball State University; Ed.D., Arizona State University
Assistant Professor of Industrial Technology - 1975
*Hugo L. Beykirch - BA., MA., Ph.D., Wayne State University
Associate Professor of Audiology - 1974 (1979)
Lamne P. Beykirch - B.A., M.A., University of Northern Iowa
Instructor of Home Economics - 1983
*Steven E. Bigler - B.A., M.FA., University of Minnesota
Associate Professor of Art - 1978 (1980)
Debela Birru - B.S., M.B.A., Northwest Missouri State University
Instructor of Management - 1983
Dian E. Blum - B.S., University of Idaho; M.S., University of Southern California
Captain-Assistant Professor of Military Science - 1985
${ }^{\bullet}$ Carl W. BollwinkeI - B.S., Concordia Teachers College; M.S., Ph.D., Southern Illinois University
Associate Professor of Teaching and Science Education - 1980
Barbara J. Bone - B.A., M.A., University of Northern Iowa
Instructor of Teaching: Foreign Language - 1985
Brian L. Book - B.Mus., M.Mus., North Texas State University
Instructor of Low Brass - 1983
Myra R. Boots - B.A., Grinnell College; M.A., University of Northern Iowa Assistant Professor of Speech Pathology - 1965 (1969)
*Mary K. Borilk - B.S., University of Wisconsin; M.A., Bradley University; Ph.D., University of Illinois, Urbana-Champaign
Assistant Professor of Communication Studies - 1982
Lymn A. Brant - B.S., M.S., D.Ed., The Pennsylvania State University
Assistant Professor of Geology - 1982
Dianna L. Briggs - BA., MA., University of Northern Iowa
Instructor of Teaching: Business Education - 1978
*Ronald D. Bro - B.A., M.A., University of Northern Iowa; Ed.D., University of Nebraska
Professor of Industrial Technology
Head of the Department of Industrial Technology - 1975
Earle G. Brooks - B.S., University of Wisconsin, Madison
Instructor of Marketing and Management
Director, Management Development Center — 1983 (1984)
Rhoda K. Brooks - B.S., University of Wisconsin; M.A., University of Minnesota
Assistant Professor of Teaching: Special Education - 1983
Kirby R. Brown - B.S., Kansas State College, Pittsburg; M.S., Pittsburg State University
Captain-Assistant Professor of Military Science - 1985
Leander A. Brown - BA., Fisk University; M.A., Roosevelt University; Ph.D., Iowa State University
Assistant Professor of Education - 1970
Steven F. Brown - B.M.E., M.M.E., Arkansas State University
Assistant Professor of Choral Music Education - 1985
John D. Bruha - B.S., University of Wisconsin, Stevens Point; M.S., University of Wisconsin, Madison
Assistant Professor of Mathematics - 1959 (1965)
Michael A. Brun - B.S., M.FA., University of Minnesota
Assistant Professor of Art - 1985
*Reinhold K. Bubser - BA., Western Michigan University; M.A., Ph.D., Michigan State University
Associate Professor of German - 1982 (1984)
*David J. Buch - B.FA., School of Art Institute, Chicago; B.A., Northeastern Illinois University; M.M., Ph.D., Northwestern University
Assistant Professor of Music History - 1985
Richard D. Burk - BA., Simpson College; M.FA., University of Illinois Assistant Professor of Theatre - 1985
Cheryl W. Budlong - BA., M.A., University of Northern Iowa
Instructor of Educational Psychology and Foundations - 1983
*James L. Burrow - B.A., M.A., University of Northern Iowa; Ph.D., University of Nebraska, Lincoln
Associate Professor of Marketing
Acting Head, Department of Information Management - 1980 (1985)
Fred C. Burton - B.FA., Wichita State University; MA., Kent State University; M.FA., Wichita State University

Assistant Professor of Art - 1983
Kenneth G. Butzier - B.A., University of Northern Iowa; M.S., University of Wisconsin
Associate Professor of Teaching: Speech and Drama - 1960 (1973)
*Daniel J. Cahill - B.S., M.A., Loyola University; Ph.D., University of Iowa
Professor of English - 1968 (1972)
*William P. Callahan II - BA., University of South Florida; M.A.T., Rollins College; Ed.D., University of Florida
Associate Professor of Special Education - 1979 (1983)
*Russell B. Campbell — Sc.B., Sc.M., Brown University; M.S., Ph.D., Stanford University
Assistant Professor of Mathematics - 1983
*Phyllis Scott Carlin - B.S.E., Northeast Missouri State University; M.S., Ph.D., Southern Illinois University
Associate Professor of Interpretation - 1976 (1982)
Thomas Carlisle - B.A., Thomas More College; M.FA., Ohio University
Associate Professor of Theatre - 1977 (1983)
John M. Carpenter - B.M., University of Louisville; M.M., Catholic University Assistant Professor of Voice - 1985

- Fred D. Carver - B.A., Aurora College; M.S., Ph.D., University of Wisconsin, Madison
Professor of School Administration
Dean of the College of Education - 1981
Louis J. Cassi - B.A., York College Pennsylvania; M.A., Ball State
Captain-Assistant Professor of Military Science - 1985
*Barbara Cassino - B.FA., M.FA., University of Michigan
Associate Professor of Art - 1978 (1982)
-G. Scott Cawelti-BA., MA., University of Northern Iowa; Ph.D., University of Iowa
Assistant Professor of English - 1968 (1973)
James G. Chadney - B.S., Portland State University; M.A., Ph.D., Michigan State University
Professor of Anthropology - 1968 (1985)
Barbara Chaney - B.A., University of Northern Iowa; M.S., Iowa State University
Assistant Professor of Curriculum and Instruction: Early Childhood Education - 1984
*James C. Chang - B.S., Mount Union College, Ohio; Ph.D., University of California, Los Angeles
Professor of Chemistry - 1964 (1974)
Hsi-Ling Cheng - B.Law., National Chengchi University; MA., Columbia University
Assistant Professor of History - 1966
Bruce Alan Chidester - B.Mus., Augustana College, Illinois; M.Mus., Northern Illinois University
Assistant Professor of Trumpet - 1969 (1972)
C. David Christensen - B.A., M.A., University of Northern Iowa

Assistant Professor of Teaching: Elementary Education - 1974 (1985)
*Roy Chung - BA., M.A., University of Wisconsin, Madison
Associate Professor of Geography and Demography - 1958 (1973)
*Robert E. Clark - B.A., Oklahoma State University; M.A., University of Oklahoma; Ph.D., University of Nebraska
Assistant Professor of Geography - 1965
*Robert E. Claus - B.A., University of Northern Iowa; MA., Ph.D., University of Iowa
Professor of Sociology - 1950 (1970)
*Bernard L. Clausen - B.A., Colgate University; M.S., University of Michigan
Associate Professor of Biology - 1959 (1970)
*Dennis E. Clayson - B.S., Ph.D., Brigham Young University
Associate Professor of Marketing - 1982 (1985)

[^3]Carol A. Colburn - B.A., Western Washington University; M.A., University of Minnesota
Assistant Professor of Theatre - 1981
-Richard Colburn - BA., Western Washington University, M.FA., University of Minnesota
Assistant Professor of Art - 1981 (1982)
Walter J. Coleman - B.A., Virginia Polytechnic University; M.E., North Carolina State University
Instructor of Management - 1985
Lorraine Commeret - B.A., Muskingum College; M.A., Ph.D., University of Illinois
Assistant Professor of Theatre - 1984
Phyllis B. Conklin - B.A., Carson-Newman College, Tennessee; M.S., Ohio University; Ph.D., University of Tennessee, Knoxville
Assistant Professor of Home Economics - 1968
*R. Forrest Conklin - B.A., Howard Payne College; M.A., Baylor University; Ph.D., Ohio University
Professor of Communication Studies - 1968 (1975)
Cindy Angel Cooley - B.A., M.B.A., University of Northern Iowa
Instructor of Management - 1984
*Timothy M. Cooney - B.S., Lockhaven State College; M.S., Elmira College; Ed.D., University of Northern Colorado
Associate Professor of Teaching and Science Education - 1977 (1982)
*Carol Cooper - B.S., Oregon State University; M.S., Smith College; Ed.D., University of North Carolina, Greensboro
Associate Professor of Physical Education - 1974 (1981)
Jeffrey S. Copeland - B.S., University of Missouri, Columbia; M.A., Arkansas State University; Ph.D., University of Missouri, Columbia
Assistant Professor of English - 1981
Steven B. Corbin - B.A., University of Northern Iowa; M.Ed., Colorado State University; Ed.D., Virginia Polytechnic Institute and State University
Associate Professor of Marketing
Head of the Department of Marketing - 1975 (1984)
*Lee E. Courtnage - B.A., Nebraska State Teachers College; M.A., Colorado State College; Ed.D., University of Northern Colorado
Professor of Special Education - 1968 (1971)
N. Kıy Covington-B.S., University of Montevallo; M.S., Illinois State University Assistant Professor of Health Education - 1985
*Graeme M. Cowen - B.S.Ed., Pennsylvania State University; M.Mus., D.Mus., Indiana University
Associate Professor of Choral Music - 1976 (1983)
Steven Richard Cox - B.B.A., University of Iowa; M.B.A. University of Northern Iowa
Instructor of Management - 1985
Roberta Craven - B.A., University of Northern Iowa; M.A., University of Minnesota
Instructor of Speech Pathology - 1975
B. Keith Crew - B.A., Auburn University at Montgomery; M.A., University of Kentucky
Assistant Professor of Sociology - 1985
George L. Crockett - B.S., Utah State University; M.S., Oregon State University; Ed.D., Utah State University
Professor of Physics - 1985
John S. Cross - B.S., M.S., University of Illinois, Urbana
Assistant Professor of Mathematics - 1963
*David R. Crownfield - A.B., Harvard College; B.D., Yale University; Th.M., Th.D., Harvard University
Professor of Religion and Philosophy - 1964 (1981)
*Dennis Crigig Cryer - B.A., M.A., University of Northern Iowa; Ph.D., University of Utah
Assistant Professor of Health Education - 1976
${ }^{*}$ Donald G. Cummings - BA., Coe College; Ph.D., Tulane University
Assistant Professor of Economics - 1963
*Donald R. Darrow - BA., MA., University of Northern Iowa; Ph.D., Ohio State University
Associate Professor of Teaching: Industrial Technology - 1973 (1981)
*Chandrasekhar Das - BA., University of Calcutta, India; M.A., University of Delhi, India; M.S., Ph.D., Case Western Reserve University
Professor of Management - 1986
Nadene A. Davidson - B.A., M.A., University of Northern Iowa Instructor of Teaching: Home Economics - 1981
*Darrel W. Davis - BA., M.A., University of Northern Iowa; Ph.D., Oklahoma State University
Associate Professor of Accounting - 1969 (1977)
Thomas M. Davis - BA., Central Washington University; M.S., H.S.D., Indiana University
Assistant Professor of Health Education
Coordinator, Health Education Division - 1979
-George F. Day - B.A., Dartmouth College; M.A.T., Harvard University; Ph.D., University of Colorado
Professor of English - 1967 (1978)
*Robert H. Decker - A.A., Chicago City College; B.S., Chicago State University; M.S., Southern Illinois University; Ed.S., Southeast Missouri State University; Ed.D., Illinois State University
Assistant Professor of Education - 1984
*Charles Van Loan Dedrick - BA., Brown University; M.A.T., Rollins College; M.Ed., Ed.D., University of Florida

Associate Professor of Education - 1971 (1979)
Bernard C. DeHoff - BA., Franklin and Marshall College; M.A., Indiana University
Associate Professor of English - 1955 (1969)
*Walter E. DeKock - B.A., Central College; M.A., University of Northern Iowa; Ph.D., Ohio State University
Associate Professor of Science Education - 1964 (1973)
*Kenneth J. DeNault - B.S., Stanford University; M.S., University of Wyoming; Ph.D., Stanford University
Associate Professor of Geology - 1973 (1980)
*Allan W. Dennis - B.M., M.M., State University of New York, Fredonia; D.M.E., Indiana University
Assistant Professor of Orchestra and String Brass - 1984
${ }^{*}$ Ervin A. Dennis - B.A., M.A., University of Northern Colorado; Ed.D., Texas A \& M University
Professor of Industrial Technology - 1973
Arcia Delries - BA., M.A., University of Northern Iowa
Instructor of Teaching: Special Education - 1985
Joan E. Diamond - BA., Knox College; M.S., University of Illinois
Associate Professor of Teaching: Educational Media - 1957 (1973)
Saul L. Diamond - B.S., Syracuse University; M.B.A., Wharton School of Business, University of Pennsylvania
Assistant Professor of Marketing
Director, Small Business Institute - 1967 (1974)
Douglas D. Doerzman - B.A., M.A., University of Northern Iowa
Assistant Professor of Teaching
Coordinator of Student Teaching — 1967 (1970)
${ }^{*}$ Forrest A. Dolgener - B.S., M.Ed., Ph.D., University of Texas, Austin
Associate Professor of Physical Education - 1979
-Susann G. Doody - B.S., Northern Illinois University; M.S., University of Wisconsin; Ph.D., University of Southern California
Associate Professor of Physical Education
Coordinator, Physical Education Division - 1977 (1984)
-Gregory M. Dotseth — BA., Luther College; M.A., Western Washington University; Ph.D., Iowa State University
Associate Professor of Mathematics - 1966 (1974)
*James L. Doud - B.S.E., M.S.E., Drake University; Ph.D., University of Iowa Associate Professor of Teaching: Elementary Education - 1970 (1978)
*Virgil E. Dowell - B.S., M.A., Kansas State Teachers College; Ph.D., University of Oklahoma
Professor of Biology — 1956 (1968)

[^4]222
*John C. Downey - B.S., M.S., University of Utah; Ph.D., University of California, Davis
Professor of Biology
Dean of the Graduate College - 1968 (1981)
Jacques F. Dubois - B.S., 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 lowa; Ph.D., Iowa State University
Professor of Teaching: School Administration - 1966 (1985)
Joan M. Duea - BA., MA., University of Northern Iowa
Professor of Teaching: Elementary Education - 1965 (1980)
Ann Mary Dunbar - B.A., Clarke 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; Ph.D., University of Michigan
Professor of Mathematics
Head of the Department of Mathematics and Computer Science - 1963 (1976)
Mary D. Durant - BA.., M.S., Virginia Polytechnic Institute and State University University Instructor in Home Economics - 1979 (1985)
*Norris M. Durham - B.S., West Chester State College, Pennsylvania; M.A., New York University, New York; Ph.D., The Pennsylvania State University Associate Professor of Anthropology
Head of the Department of Sociology and Anthropology - 1979
Lynn K. Dylkstra - BA., Creighton University; M.A.E., Ed.S., University of Iowa Instructor of Teaching: Educational Media - 1984
*J. Phillp East - B.S., Southwestern State Oklahoma University; M.S., Ph.D., University of Oregon
Assistant Professor of Computer Science Education - 1985
*Whitfield Brown East - B.A., M.A., University of North Carolina; Ed.D., University of Georgia
Associate Professor of Physical Education - 1979 (1985)
Charlene M. Eblen - B.A., Wichita State University; M.A., University of Northern Iowa
Assistant Professor of English - 1967 (1970)
*Frje Echeverria - BA., Florida Presbyterian College; M.FA., University of Arkansas
Professor of Art - 1969 (1985)
*Jay A. Edelnant - B.A., McMurray College; MA., Ph.D., Northwestern University
Associate Professor of Interpretation
Director of Theatre - 1971 (1983)
H. Stephan Eggor-B.S., M.A., University of Wisconsin, Stout; Ed.D., Texas A. \& M. University

Assistant Professor of Industrial Technology - 1985
*Jeffrey Ehrenreich - B.S., University of Bridgeport; M.A., Ph.D., New School for Social Research, New York
Assistant Professor of Anthropology - 1981
*John L. Eiklor - BA., Wichita State University; M.A., Ph.D., Northwestern University
Professor of History - 1963 (1970)
Acting Director, Museum - 1982
*Lawrence J. Eilers - B.A., MA., University of Northern Iowa; Ph.D., University of Iowa
Professor of Biology - 1968 (1977)
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 - BA., M.A., University of Iowa
Assistant Professor of Educational Media
Coordinator of Audio-Visual Services - 1961 (1966)
Mark C. Ellis - BA., University of Northern Iowa; M.A., Mankato State College Instructor in Teaching: Music - 1980
*Ralph D. Engardt - B.S., Ph.D., Iowa State University
Associate Professor of Physics - 1965 (1973)

[^5]Cynthia P. Ensign - B.S., Springfield College; Ph.D., University of Wisconsin, Madison
Assistant Professor of Physical Education - 1985
*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 - 1963 (1972)
Susan E. Etscheidt - BA., M.A., University of Northern Iowa; Ph.D., University of Minnesota
Assistant Professor of Special Education - 1977 (1984)
Russell E. Euchner - BA., MA., University of Northern Iowa
Assistant Professor of Education - 1960
'Wayne R. Evenson - B.A., B.S.E.E., J.D., University of Iowa
Professor of Management and Labor Law - 1966 (1972)
*Vincent E. Faherty - BA., St. Joseph's College; M.S.W., Fordham University; D.S.W., University of Utah; M.B.A., University of Geneva, International Management Institute
Associate Professor of Social Work
Head, Department of Social Work - 1985
*Mohammed F. Fahmy - B.S., Ain-Shams University, Cairo; M.S., Rensselaer Polytechnic Institute; Ph.D., Michigan State University
Assistant Professor of Industrial Technology - 1983
*John T. Fecik - B.S., California State University (Pennsylvania); M.Ed., Ed.D., University of Maryland
Professor of Industrial Technology - 1981
William J. Ferrara - BA., Kenyon College (Ohio); M.S.M., Indiana University Assistant Professor of Opera/Music Theatre - 1984
Mark A. Flenup-BA., University of Northern Iowa; M.S., Iowa State University Assistant Professor of Computer Science - 1985
Rosa Maria E. Findlay - B.A., University of Puerto Rico; M.A., University of Northern Iowa
Instructor in Teaching: Foreign Language - 1964
*Donald E. Finegan - B.FA., MA., Ohio State University
Professor of Art - 1955 (1966)
*Judith M. Finkelstein - B.S., University of Illinois; M.A., University of Northern Iowa; Ph.D., University of Minnesota
Associate Professor of Teaching: Early Childhood Education - 1968 (1985)
D. Louis Finsand - B.S., University of Wisconsin, LaCrosse; M.A., University of Northern Iowa
Professor of Teaching and Science Education - 1964 (1979)
Marianne Fisher-Giorlando - B.A., Wright State University, Ohio; M.A., The Ohio State University
Assistant Professor of Sociology - 1984
*Stephen J. Fortgang - BA., University of Chicago; M.A., Ph.D., Syracuse University
Associate Professor of Education - 1975 (1981)
"Adolfo Mariano Franco - B.A., Instituto de Cárdenas, Cuba; Doctor in Law, Universidad de la Habana, Cuba; M.A., Ph.D., University of Iowa
Professor of Spanish - 1967 (1984)
*Robert L. Frank - B.S., M.E., Ed.D., University of Nebraska
Professor of Education and Psychology - 1962 (1970)
*Mary L. Franken - B.S., University of Wisconsin, Stout; M.S., University of Wisconsin, Madison; Ed.D., Drake University
Associate Professor of Home Economics (Family Studies) - 1969 (1979)
Joseph E. Fratianni-B.S., Bridgewater State College; M.S., Ph.D., University of Wisconsin, Madison
Assistant Professor of Teaching
Coordinator of Student Teaching - 1971
Arnold J. Freitag - B.S., Purdue University; M.S., Iowa State University Assistant Professor of Industrial Technology - 1968
*Taggart Frost - B.S., M.S., Ph.D., Brigham Young University
Associate Professor of Management - 1978 (1984)
${ }^{*}$ Len F. Froyen - B.A., University of Northern Iowa; M.A., Michigan State University; Ed.D., Indiana University
Professor of Education - 1958 (1973)

Sara J. Frudden - B.A., MA., Ed.S., University of Northern Iowa; Ph.D., Iowa State University
Assistant Professor of Special Education - 1974 (1981)
James F. Fryman - BA., Denison University; MA., Miami University, Ohio; Ph.D., University of North Carolina, Chapel Hill
Assistant Professor of Geography - 1978
Sherry K. Gable - B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa
Assistant Professor of Education - 1974 (1980)
*Jayne I. Gackenhach - B.A., New Mexico State University; M.S., Ph.D., Virginia Commonwealth University
Associate Professor of Psychology - 1980 (1984)
*Stephen J. Gaies - BA., Hamilton College; M.A., Ph.D., Indiana University
Associate Professor of English - 1978 (1980)
Linda F Gammill-B.S., M.S., Eastern New Mexico University; Ph.D., University of Nebraska, Lincoln
Assistant Professor of Information Management - 1981 (1984)
*Joyce A. Gault - BA., University of Northern Iowa; M.Mus., D.Mus., Northwestern University
Professor of Piano - 1957 (1969)
*Patricia L. Geadelmann - BA., University of Northern Iowa; M.A., University of Iowa; Ed.D., University of North Carolina, Greensboro
Professor of Physical Education - 1972 (1984)
Assistant Vice President of Academic Affairs - 1984
*Albert R. Gilgen - BA., 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; MA., University of Northern Iowa; Ph.D., Oklahoma State University
Associate Professor of Economics - 1966 (1972)
*Andrew R. Gllpin - B.S., M.A., Ph.D., Michigan State University
Associate Professor of Psychology - 1974 (1979)
*Robert F. Gish — B.A., M.A., Ph.D., University of New Mexico
Professor of English - 1967 (1979)
Linda Gleissner - B.S., Wisconsin State University, Stevens Point; M.A., University of Northern Iowa
Instructor of Teaching: Special Education - 1981
*George David Glenn-A.B., Shimer College; MA., Northern Illinois University; Ph.D., University of Illinois
Professor of Theatre - 1966 (1984)
Karen A. Clynn - BA., St. Joseph's College; M.B.A., University of Maine
Instructor of Marketing - 1985
David L. Gobeski - B.S.I.E., Western Michigan University; M.A., Central Michigan University
Instructor of Industrial Technology - 1985
*Kenneth G. Gogel - B.S., MA., Ohio State University
Professor of Art - 1950 (1974)
Cynthia R. Goldstein - BA., University of Michigan; MA., Michigan State University; Ph.D., Penn State University
Assistant Professor of English - 1983
Julie D. Goodlick - B.S., M.S., Illinois State University
Adjunct Instructor of Speech Communication - 1985
Harriet Goodman - B.A., University of California, Los Angeles; M.A., University of Northern Iowa
Instructor of Education - 1980 (1985)
*Ralph M. Goodman - B.A., M.A., Ph.D., University of California, Los Angeles Associate Professor of English - 1964 (1970)
*Robert C. Goss - B.S., Huntington College; M.S., Ph.D., Purdue University Professor of Biology - 1961 (1968)
Lymda Goulet - B.S., Denison University; M.B.A., University of Northern Iowa Instructor of Management - 1978
*Peter G. Goulet - B.A., Denison University; M.BA., Ph.D., Ohio State University
Associate Professor of Management - 1974 (1977)

Dennis 0. Grady - B.A., University of North Carolina, Chapel Hill; M.C.P., Georgia Institute of Technology; Ph.D., Emory University
Assistant Professor of Political Science - 1984
Jack E. Graham - B.Mus.Ed., Wichita State University; M.Mus., North Texas State University
Associate Professor of Clarinet - 1967 (1982)
William H. Graves - BA., M.A., Ph.D., Florida State University
Visiting Assistant Professor of History - 1983
*Elton E. Green - B.S., M.S., Kansas State University; Ed.D., University of Northern Colorado
Professor of Physical Education - 1968 (1972)
${ }^{7}$ Kenneth N. Green - B.S., Iowa State University; MA., University of Northern Iowa; Ed.D., University of Arkansas
Associate Professor of Recreation
Coordinator of Campus Recreation Division - 1967 (1974)
Wanda K. Green - A.B., M.A., Ed.D., University of Northern Colorado
Assistant Professor of Physical Education - 1967 (1975)
*Mitchell A. Greene - B.S., Dillard University; M.A., Case Western University; Ph.D., University of Iowa
Associate Professor of Social Work - 1972 (1977)
Diane C. Gregory - B.S., M.Ed., Ph.D., University of Missouri
Assistant Professor of Art - 1985
Mary Kay Grosso - B.S., Illinois State University; M.S., Marshall University Instructor of Teaching: Physical Education - 1983
Peter Habermann - B.A., J. W. Goethe University; M.A., Free University, Berlin; Ph.D., J. Liebig University
Associate Professor of Mass Communication - 1984 (1985)
*Carlin F. Hageman - B.A., M.A., Ph.D., University of Colorado
Assistant Professor of Speech Pathology - 1982
*Leslle W. Hale - B.M.E., M.M.E., Drake University; D.M.A., University of Missouri, Kansas City
Professor of Teaching: Music — 1960 (1974)
Debra A. Haley - B.S., Kansas Newman College; M.BA., Emporia State University
Assistant Professor of Marketing - 1984
*G. Jon Hall - BA., Central State College, Oklahoma; MA., Ph.D., Southern Illinois University
Associate Professor of Communication Studies
Head of the Department of Communication and Theatre Arts - 1973
James G. Hall - B.S., M.S., Eastern Illinois University
Instructor in Physical Education - 1983
*Fred W. Hallberg - B.A., M.A., University of Minnesota; M.S., Iowa State University; Ph.D., University of Minnesota
Associate Professor of Philosophy - 1967 (1972)
"Geylon L. Halverson - B.A., Luther College; M.A., University of Northern Iowa; D.B.A., Indiana University; C.PA.

Professor of Accounting
Head of the Department of Accounting - 1963 (1981)
*Albert C. Haman - BA., University of Iowa; MA., Michigan Stata University Associate Professor of Biology - 1961 (1972)
Rowena Hammill - B.M., Northern Illinois University; M.M., Indiana University Instructor of Cello - 1985
*Susan M. Hamre-Nietupski - B.S.. M.S., Ph.D., University of Wisconsin, Madison
Associate Professor of Special Education - 1980 (1985)
*James L. Handorf - BA., University of Northern Iowa; M.A., Ph.D., University of Northern Colorado
Associate Professor of Information Management - 1966 (1973)
*Glenn L. Hansen-B.A., M.A., University of Northern Iowa; Ph.D., Texas A \& M University
Associate Professor of Information Management
Dean of the Division of Continuing Education and Special Programs - 1964 (1982)

Jon Edward Hansen - BA., MA., University of Northern Iowa
Associate Professor of Trombone - 1969 (1974)

Richard B. Hansen - BA., St. Ambrose College; MA., Ph.D., University of Nebraska, Lincoln
Assistant Professor of Economics - 1978
Thomas W. Hansmeier - B.A., M.A., University of Northern Iowa; Ed.D., Michigan State University
Professor of Education
Coordinator of Continuing Education, College of Education -- 1971 (1984)
*Carole J. Hanson - B.A., Luther College; M.A., Michigan State University; Ed.D., University of Nebraska, Lincoln
Associate Professor of Recreation - 1981
*Donald L. Hanson - B.A., M.A., University of Northern Iowa; Ed.D., University of Wyoming
Professor of Education - 1966 (1970)
*Roger J. Hanson - B.S., Gustavus Adolphus College; M.A., Ph.D., University of Nebraska
Professor of Physics - 1969
James N. Hantula - B.A., M.A., University of Michigan
Associate Professor of Teaching: Social Studies - 1965 (1975)
Keith T. Hardeman - B.A., Golden West College; M.A., California State University, Long Beach
Adjunct Instructor of Communication Studies - 1982
*Robert R. Hardman - B.S., Maryland State Teachers College; M.S., Ed.D., Indiana University
Professor of Educational Media
Director of the Educational Media Center - 1970 (1974)
*Jeanne Mclain Harms - BA., M.A.E., Ed.S., University of Northem Iowa; Ph.D., Ohio State University
Associate Professor of Education - 1961 (1973)
*Gordon M. Harrington - B.E.E., Georgia Institute of Technology; Ph.D., Yale University
Professor of Psychology — 1963 (1968)
Judith F. Harrington - B.S., Boston College; M.A., University of Iowa
Assistant Professor of Speech Pathology - 1965 (1969)
Edwin H. Harris - BA., MA., University of Northern Iowa
Associate Professor of Teaching: Art - 1982 (1984)
*Vrrginia Hash - B.S., Iowa State University; M.A., Ed.S., University of Northern Iowa; Ph.D., Iowa State University
Associate Professor of Education
Associate Dean of Continuing Education and Special Programs - 1966 (1983)
*Catherine Wooledge Hatcher - B.A., M.S., Ph.D., Purdue University
Associate Professor of Education
Coordinator of Reading Education - 1975 (1980)
*Shirrey Eliason Haupt - B.A.E., School of the Art Institute of Chicago; M.FA., University of Iowa
Professor of Art - 1966 (1980)
*Richard R. Hawkes - B.S., Municipal University of Omaha; M.S., University of Nebraska, Ornaha; Ph.D., University of Nebraska, Lincoln
Professor of Teaching
Coordinator of Student Teaching - 1969 (1985)
*D. C. Hawley - B.A.Ed., Kearney State College; M.A., Ph.D., University of Iowa Professor of Spanish - 1966 (1970)
*R. Allen Hays - B.A., Johns Hopkins University; M.A., Ph.D., University of North Carolina
Associate Professor Political Science - 1979 (1985)
*Marvin O. Heller - B.S., M.E., University of Nebraska; Ed.D., University of Northern Colorado
Associate Professor of Education - 1970 (1974)
*Louis R. Hellwis - B.A., M.A., New Mexico State University; Ph.D., University of Missouri, Columbia
Assistant Professor of Psychology - 1964 (1968)
*Bill Henderson - B.A., Central State College, Oklahoma; M.A., University of Houston; Ph.D., University of Minnesota
Associate Professor of Communication Studies
Director of Forensics - 1978

Glen F. Henry - B.S., M.S., Nebraska State College, Chadron
Associate Professor of Physical Education - 1966 (1974)
${ }^{\bullet}$ Larry D. Hensley - BA.., Southern Methodist University; M.S., Indiana University; Ed.D., University of Georgia
Associate Professor of Physical Education
Coordinator of Graduate Studies Division — 1979 (1984)
James J. 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.PA., University of Washington; Ph.D., Bowling Green State University
Associate Professor of Speech Pathology - 1975 (1982)
*Leah F. Hiland - B.A., M.A., Ph.D., Indiana University
Assistant Professor of Library Science - 1972
*Thomas W. Hill - B.S., University of Wisconsin; Ph.D., University of Pennsylvania
Professor of Anthropology - 1972 (1985)
Jody M. Hines - B.S., M.A.T., University of Iowa; Ph.D., Southern Illinois University
Assistant Professor of Teaching and Science Education - 1978 (1985)
*Darrel B. Hoff - B.A., Luther College; M.A., University of Northern Iowa; Ph.D., University of Iowa
Professor of Astronomy and Science Education - 1964 (1975)
Randy A. Hogancamp - B.A., University of Northern Iowa; M.Mus., Northwestern University
Assistant Professor of Percussion - 1972 (1976)
*A. John Holstad - B.S., Northern State College, South Dakota; M.Mus., D.Mus., Northwestern University

Associate Professor of Piano - 1962 (1973)
Martha T. Holvik - B.S., University of Minnesota; M.A., University of Northern lowa
Assistant Professor of Viola and Theory - 1968 (1977)
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; M.A., Ed.D., University of Northern Colorado
Professor of Education - 1951 (1966)
*Grace Ann Hovet - B.A., College of St. Catherine; M.A., University of Minnesota; Ph.D., University of Kansas
Associate Professor of English - 1969 (1977)
*Theodore R. Hovet - B.S., North Dakota State College; M.A., University of Minnesota; Ph.D., University of Kansas
Professor of English - 1969 (1979)
Pamela Howard - B.A., Central College, Pella; M.A., University of Texas, Austin Instructor in Cultural and Intensive English Program - 1984
*Genevieve E. Hubly - B.A., Rice University; M.A., M.FA., University of Iowa; Ph.D., University of Oregon
Associate Professor of English - 1967 (1978)
*Sharon Huddleston - B.S., M.Ed., Stephen F Austin State University; Ph.D., University of Iowa
Assistant Professor of Physical Education - 1973 (1983)
*Sally A. Hudson - B.A., Wittenberg University; M.A., Ohio State University; Ed.D., University of Georgia
Assistant Professor of English - 1984
*Dawld B. Ingram - B.A., University of California, Invine; M.A., Ph.D., University of California (San Diego)
Assistant Professor of Philosophy - 1980
-Gerald W. Intemann - B.S., M.S., Ph.D., Stevens Institute of Technology
Professor of Physics
Head of the Department of Physics - 1980
Patricia Jackley - B.A., University of Northern Iowa
Instructor of Teaching: Physical Education - 1984
Mark F. Jacobson - BA., University of Northern Iowa
Instructor in Computer Science - 1984

[^6]Edward Jamosly - B.A., University of Wisconsin; MA. in Russian, MA. in Library Science, University of Wisconsin
Assistant Professor of Russian - 1965 (1969)
${ }^{*}$ Allen D. Jedlicka - B.A., San Diego State University; Ph.D., Northwestern University
Professor of Organizational Behavior - 1973 (1982)
Alan Jensen - B.A., Wartburg College
Instructor of Teaching: Social Studies - 1985
Ann E. Jensen - B.S., Iowa State University
Adjunct Instructor in Mathematics - 1984
Marvin D. Jensen - BA., Midland Lutheran College; MA., University of Kansas Assistant Professor of Communication Studies - 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; D.M.A., University of Texas, Austin
Associate Professor of Theory - 1971 (1977)
*Charles D. Johnson - B.S., Florida State University; M.I.E., Western Carolina University; Ed.D., North Carolina State University
Assistant Professsor of Industrial Technology - 1981
Deanna S. Johnson - B.M., M.M., University of Northern Iowa
Instructor of Flute - 1981 (1985)
*J. Keith Johnson - B.A., North Texas State University; M.M., University of Illinois
Professor of Trumpet - 1966 (1982)
Ronald W. Johnson - B.M.E., Texas Technical University; M.A., California State University, Northridge
Assistant Professor of Instrumental Music - 1982
Valdon L. Johnson - BA., M.A., University of Northern Iowa
Assistant Professor of English - 1968 (1971)
*Howard V. Jones - B.A., M.A., Ph.D., Harvard University
Professor of History - 1954 (1964)
Pamela K. Jones - BA., M.A., University of Northern Iowa
Instructor of Public Relations - 1985
*Elaine B. Kalmar - BA., MA., Ph.D., University of New Mexico
Associate Professor of English - 1971 (1978)
*John J. Kamerick - BA., St. Ambrose College; M.A., Ph.D., University of Iowa Professor of History
President Emeritus - 1970 (1983)
Cheryl A. Kapler - BA., University of Northern Iowa
Instructor of Teaching: Mathematics - 1985
*Lawrence L. Kavich - B.S., M.S., Ed.D., University of California, Los Angeles Professor of Education
Head of the Department of Educational Psychology and Foundations - 1977
*Thomas Keefe - B.A., University of Colorado; M.S.W., University of Denver; D.S.W., University of Utah

Professor of Social Work - 1973 (1982)
*James L. Kelly - B.S., M.S., Mankato State College; Ph.D., University of Nebraska, Lincoln
Associate Professor of Teaching and Science Education - 1969 (1984)
Lawrence A. Kelsey - BA., Ph.D., University of Iowa
Assistant Professor of Astronomy and Science Education - 1979
James R. Kenney - B.S., M.S., Southern Illinois University
Assistant Professor of Home Economics - 1984
Dennis W. Kettner - BA., MA., University of Northern Iowa
Instructor of Teaching: Mathematics - 1975
*Jack F. Kimball - B.A., University of Kansas City; M.A., Syracuse University; Ed.D., Columbia University
Associate Professor of Education - 1967
Wayne A. King - B.A., State University of New York, Plattsburgh; M.A., Ph.D., University of Michigan
Adjunct Assistant Professor of Education
Director of the Learning Skills Center - 1978 (1982)
*Regular graduate faculty member.

Carey H. Kirk - B.A., Princeton University; M.A., University of Virginia; Ph.D., Vanderbilt University; J.D., University of Iowa
Assistant Professor of Management - 1983
Gloria Kirkland - B.A., Fisk University; M.S., Ph.D., Indiana State University Associate Professor of Teaching: Early Childhood Education - 1978 (1983)
"Syed N.U.A. Kirmani - B.S., M.S., Lucknow University, India; Ph.D., Aligarh Muslim University, India
Associate Professor of Mathematics - 1984
Kim Klaseus - B.A., Wartburg College; M.S., Northwest Missouri State University
Instructor of Teaching: Special Education - 1985
${ }^{*}$ William B. Kline - BA., M.A., University of Mississippi; Ph.D., University of Michigan
Assistant Professor of Education - 1982
Aurelia L. Klink - BA., MA., University of Northern Iowa
Director of Non-Credit Programs
Assistant Professor of Information Management - 1966 (1985)
"Jerome F. Klinkowitz - B.A., MA., Marquette University; Ph.D., University of Wisconsin
Professor of English — 1972 (1976)
*Fritz H. König - BA., University of Heidelberg; Candidatus Magisterii, University of Oslo; MA., Ph.D., University of Iowa
Professor of German
Head of the Department of Modern Languages - 1967 (1975)
*Jürgen Koppensteiner - Ph.D., University of Graz, Austria
Professor of German - 1968 (1976)
Elmer J. Kortemeyer - B.S., M. $\bar{A}$., University of Wyoming
Assistant Professor of Health Education - 1965 (1968)
${ }^{*}$ Robert J. Krajewski-B B.S., M.S., University of Illinois; Ed.D., Duke University Professor of Education
Head of the Department of Educational Administration and Counseling - 1981
Robert E. Kramer - Ph.B., MA., University of North Dakota
Assistant Professor of Sociology - 1965 (1970)
*Marilou DeWall Kratzenstein-BA., Calvin College; MA., Ohio State University; D.M.A., University of Iowa
Professor of Organ and Music History - 1975 (1983)
*Marian E. Krogmann - B.S., South Dakota State University; M.A., Ph.D., University of Iowa
Associate Professor of Political Science - 1967 (1970)
Dean A. Kruckeberg - BA., Wartburg College; MA., Northern Illinois University, DeKalb; Ph.D., University of Iowa
Assistant Professor of Public Relations - 1983
Robert Krueger - B.A., Ph.D., University of Minnesota
Assistant Professor of Spanish and Portuguese - 1984
${ }^{*}$ Raymond W. Kuehl - B.S., Upper Iowa University; M.A., University of Iowa; Ed.S., Drake University; Ph.D., University of Iowa
Professor of Teaching
Coordinator of Student Teaching - 1966 (1980)
*Roger A. Kueter - BA., Loras College; M.A., Ed.D., Indiana University
Associate Professor of Education - 1970 (1974)
*Loretta Sylvia Kuse - B.S., Wisconsin State University; MA., Ph.D., University of Iowa
Assistant Professor of Education - 1972
*Geraldine E. LaRocque - B.S., M.A., University of Minnesota; Ph.D., Standford University
Professor of English
University Liaison for Teacher Education - 1972 (1983)
Catherine M. Larsen - B.A., Washington State University; MA., Seattle Pacific University
Instructor of Teaching: Music - 1983
*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)
*Richard T. Lattin-BA., University of Northern Iowa; M.A., Ph.D., University of Iowa
Professor of Education - 1947 (1969)

Kevin Lawrence - B.M., M.M., Juilliard School of Music
Assistant Professor of Violin - 1984
Roger W. Lawson - B.S., University of Iowa; MA., University of Missouri
Lt. Colonel - Professor of Military Science
Head of the Department of Military Science - 1983
Cherin A. Lee - BA., MA., University of Northern Iowa
Instructor in Biology - 1981 (1982)
*Key Ton Lee - B.S., Union College, Nebraska; M.A., Andrews University, Michigan; Ph.D., University of Oklahoma
Professor of Education - 1967 (1978)
Rick A. Lee - B.A., Southwest State University; Minnesota; M.A., University of Northern Iowa
Instructor in Mathematics - 1985
Robert E. Lee - BA., M.A., University of Northern Iowa
Instructor of Teaching: Physical Education - 1981
*Robert T. Lemble - B.S., M.S., Mankato State College; Ed.D., University of South Dakota
Associate Professor of Education - 1974
*William W. Lew - B.A., Central Washington State College; M.FA., University of Oregon; Ph.D., Ohio University
Professor of Art
Head of the Department of Art - 1985
Tet F. Liew - B.S., M.S., Iowa State University
Assistant Professor of Computer Science - 1985
Michelle I. Link - B.S., M.S., Northwestern Missouri State University
Instructor of Teaching: Elementary Education - 1985
*Thomas L. Little - B.A., Macalester College; M.Ed., University of Mississippi; Ed.D., Memphis State University
Associate Professor of Special Education - 1973 (1978)
*Bonnie H. Litwiller - B.S.Ed., M.S.Ed., Illinois State University; M.A.T., Ed.D., Indiana University
Professor of Mathematics - 1968 (1976)
John C. Longnecker - BA., MA., University of Northern Iowa
Assistant Professor of Mathematics - 1966 (1980)
*Barbara S. Lounsbery - B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa
Associate Professor of English - 1976 (1983)
Norbert L. Lovata - B.S., M.S., University of Wyoming; Ph.D., Iowa State University
Assistant Professor of Industrial Technology - 1979
*Jonathan J. Lu - B.Ed., Taiwan Normal University; B.D., Asbury Theological Seminary; M.A., Ohio State University; Ph.D., University of Washington
Professor of Geography - 1973 (1980)
Cheryl A. Lubinsli - B.S., M.Ed., University of Minnesota
Instructor of Teaching: Elementary Education - 1982
Maryline Lukacher - B.A., Faculté de Nice, France; Ph.D., University of California, San Diego
Assistant Professor of French - 1985
*Gene M. Lutz - B.S., M.S., Ph.D., Iowa State University
Associate Professor of Sociology - 1973 (1978)
*H. Lewis Lynch - B.S., M.Ed., University of Nebraska, Lincoln; Ed.D., University of Wyoming
Associate Professor of Teaching
Coordinator of Student Teaching - 1951 (1969)
Howard W. Lyon - B.A., M.S., University of Iowa
Assistant Professor of Chemistry - 1956 (1959)
*Tony N. McAdams - B.A., University of Northern lowa; M.B.A., Columbia University; J.D., University of Iowa
Professor of Management
Head of the Department of Management - 1982
John B. MacArthur - M.A., University of Lancaster, Lancashire, England; Fellow Assocation of Certified Accountants, United Kingdom; Ph.D., University of Wales
Assistant Professor of Accounting - 1981
*David V. McCalley - B.A., M.A., University of Northern Iowa; Ed.D., University of Northern Colorado
Associate Professor of Biology and Science Education - 1966 (1980)
Janet E. McClain - B.S., Northern Illinois University; M.S.Ed., University of Dayton, Ohio
Instructor of Teaching: Elementary Education - 1976
*Kenneth J. McCormick - B.A., University of California, Riverside; Ph.D., Iowa State University
Assistant Professor of Economics - 1982
*James McCullagh -- BA., California State College, Chico; M.S.S.W., University of Missouri, Columbia; Ed.D., Northern Illinois University, DeKalb
Associate Professor of Social Work - 1981 (1983)
*Norman L. McCumsey - B.S., Oregon College of Education; M.Ed., University of Oregon; Ed.D., Colorado State College
Associate Professor of Education - 1967 (1970)
Daniel L. McDonald - B.S., M.S., Ed.D., Oklahoma State University
Assistant Professor of Recreation
Coordinator of Recreation Division - 1985
Lea Ann McDonnell - B.A., University of Northern Iowa; M.A., University of lowa
Instructor in Physical Education - 1985
${ }^{*}$ LeRoy A. McGrew - BA., Know College; M.S., Ph.D., University of Iowa Professor of Chemistry
Head of the Department of Chemistry - 1977
Kent A. McIntyre - B.A., University of Iowa; M.A., University of Denver
Associate Professor of Teaching: Educational Media - 1968 (1974)
*James G. Macmillan - BA., Western Washington State College; Ph.D., Ohio State University
Associate Professor of Chemistry - 1972 (1977)
*H. Kent Macomber - B.S., M.S., University of California, Berkeley; Ph.D., Harvard University
Associate Professor of Physics - 1976 (1977)
*Marc C. Mahlios - B.S., B.A., MA., Ph.D., Arizona State University
Associate Professor of Teaching
Director of Student Field Experiences - 1983
*Donna J. E. Maier - B.A., College of Wooster; M.A., Ph.D., Northwestern University
Associate Professor of History - 1978 (1981)
Philip A. Mann - B.A., M.A., Drake University; Ph.D., University of Michigan Associate Professor of Psychology - 1985
Joseph J. Marchesani - B.A., Fordham University; M.S., Brooklyn College; M.Ed., Temple University

Assistant Professor of Educational Media
Coordinator of Television Services - 1972
Barbara K. Mardis - B.A., Shimer College; M.B.A., University of Northern Iowa Instructor of Management - 1981
Jeanette J. Marsh - B.S., Mankato State College; M.S., University of New Mexico; Ph.D., University of Minnesota
Assistant Professor of Physical Education
Coordinator of General Education Division - 1975
*Ripley E. Marston - B.S., James Madison University; M.S., University of Tennessee, Knoxville; Ph.D., University of Iowa
Assistant Professor of Physical Education - 1976 (1983)
*Elizabeth A. Martin - B.A., Wartburg College; MA., University of Minnesota Associate Professor of Library Science
Head of the Department of Library Science - 1962 (1972)
Marilyn W. Martin - B.A., Muskingum College; M.A., Northwestern University; Ph.D., University of Wisconsin, Madison
Assistant Professor of Teaching
Coordinator of Student Teaching - 1984
*Robert F. Martin - B.A., Wofford College, South Carolina; M.A., Ph.D., University of North Carolina, Chapel Hill
Associate Professor of History - 1981 (1984)
A. Marleta Matheson - B.M.E., Simpson College; M.M., University of Michigan Assistant Professor of Group Piano and Accompanying -- 1964 (1976)

- Charles R. May - B.S., West Texas State University; MA., Eastern New Mexico University; Ph.D., Ohio State University
Professor of Curriculum and Instruction: Elementary and Early Childhood Education
Head of the Department of Curriculum and Instruction - 1982
David W. May - B.G.S., University of Kansas; MA., University of California Assistant Professor of Geography - 1985
*Donald E. Maypole - B.S., Idaho State College; M.S.S.W., University of Wisconsin; Ph.D., University of Minnesota
Associate Professor of Social Work - 1979 (1982)
*Peter M. Mazula - B.S., University of New York, Courtland; M.A., Ed.D., Columbia University
Professor of Teaching: Safety Education - 1949 (1973)
Charles L. Means - B.S., Southern Illinois University; M.A., Webster College; Ph.D., St. Louis University
Adjunct Associate Professor of Education
Assistant Vice President for Academic Affairs for EOP/SCS - 1983
Josephine Megivern - B.A., MA., University of Northern Iowa
Assistant Professor of Home Economics - 1967 (1972)
*Margaret M. Merrion - B.S., Chicago State University; M.Ed., Ph.D., University of Missouri, Columbia
Associate Professor of Music Education - 1978 (1984)
Jane C. Mertesdorf - B.S., Mankato State College; M.A., Ball State University Assistant Professor of Recreation - 1966 (1975)
*Peter S. Michaelides - B.Mus., Baldwin-Wallace College; M.Mus., Oberlin College; D.M.A., University of Southern California
Professor of Theory and Composition - 1965 (1978)
Robert E. Mild - BA., M.A., West Virginia Wesleyan College
Adjunct Instructor of Communication Studies - 1985
*Michael H. Millar - B.A., Harvard University; M.S., Ph.D., University of Chicago
Professor of Mathematics - 1962 (1975)
${ }^{*}$ Leslie C. Miller III-B.S., M.S., Southwest Texas State University; Ed.D., West Virginia University
Assistant Professor of Industrial Technology - 1979
*Patrick W. Miller - B.S., M.Ed., Bowling Green State University; Ph.D., Ohio State University
Associate Professor of Industrial Technology - 1981
*Geofrey T. Mills - B.S., M.S., Ph.D., University of Illinois
Assistant Professor of Management
Assistant Dean and Coordinator of Graduate Programs - 1983
Robert A. Mills - B.A., M.B.A., University of Northern Iowa
Instructor of Management - 1983
Patrick B. Moffit - B.S., M.A., Central Michigan University; Ph.D., University of Utah
Assistant Professor of Health Education - 1980
Marilyn D. S. Monteiro - BA., University of Massachusetts; Ed.M., Ed.D., Harvard University
Adjunct Assistant Professor of Education
Director of Affirmative Action Programs - 1983
Charles E. Moore - B.S., M.S., Bemidji State University; Ph.D., University of Nebraska, Lincoln
Assistant Professor of Teaching: Administration - 1983
*David W. Moore - B.A., M.Ed., University of Arizona; Ph.D., University of Georgia
Associate Professor of Curriculum and Instruction: Reading - 1982 (1984)
Iynn M. H. Moore - B.S., Bemidji State University; M.A., University of Northern Iowa
Instructor of Teaching: Elementary Education - 1984
-Sharon Arthur Moore - B.S., B.A., M.S., Ohio University; Ph.D., University of Georgia
Associate Professor of Curriculum and Instruction: Reading - 1982 (1985)
David L. Morgan - BA., Swarthmore College; MA., Washington University, St. Louis
Assistant Professor of Philosophy - 1969
*Janice M. Morgan — B.S., M.Ed., University of Missouri, Columbia; Ph.D., Iowa State University
Associate Professor of Home Economics - 1972 (1975)
"Karen C. Morgan - B.A., Albion College; M.S., lowa State University; Ph.D., Ohio State University
Assistant Professor of Home Economics - 1981
*Robert E. Morin - B.A., M.S., Northwestern University; Ph.D., University of Wisconsin
Professor of Psychology - 1972
Farzad Moussavi - B.A., Institute of Advanced Accounting, Iran; D.A.S., Leeds Polytechnic, England; M.BA., Roosevelt University; Ph.D., University of Arkansas
Assistant Professor of Management - 1985
${ }^{*}$ Raúl Muñoz-BA., MA., in Sociology, University of Nebraska; M.A., in Spanish Literature, Ph.D., Michigan State University
Associate Professor of Spanish - 1963 (1974)
William H. Myatt - B.A., University of Northern Iowa
Instructor of Teaching: Language Arts - 1985
Ben F. Myers - B.Ed., University of Toledo; M.S., Eastern Michigan University Instructor of Teaching: Physical Education - 1982
*Hyo Chul Myung - B.S., M.S., Seoul National University, Republic of Korea; Ph.D., Michigan State University
Professor of Mathematics - 1970 (1978)
Karen S. Nantz - B.A., M.A.E., M.A., University of Northern Iowa
Instructor of Information Management - 1984
Ramachandran Natarajan - B.Tech., Indian, Institute of Technology; M.B.A., Indian Institute of Management; M.S., Northwestern University; Ph.D., University of Kansas
Assistant Professor of Management - 1984
Clinton Nelson - B.A., Midland Lutheran College; MA., University of Nebraska; Ph.D., University of Iowa
Assistant Professor of Communication Studies - 1967
*Glenn T. Nelson - B.Ed., Keene State College; M.S.T., University of New Hampshire; Ph.D., University of Iowa
Associate Professor of Mathematics - 1974 (1980)
Philip J. Nelson - B.S., Augustana College, South Dakota; M.A., University of Nebraska, Omaha
Assistant Professor of Teaching: Social Studies - 1969 (1974)
*Richard S. Newell - B.A., M.A., University of Washington; Ph.D., University of Pennsylvania
Professor of History
Acting Coordinator of International Studies - 1967 (1985)
Lee H. Nicholas - B.S., B.A., University of Kansas; M.B.A., University of Tulsa; C.PA.

Assistant Professor of Accounting - 1974 (1982)
${ }^{*}$ Lynn E. Nielsen - B.A., University of Iowa; M.A., University of Northern lowa; Ph.D., University of lowa
Associate Professor of Teaching: Elementary Education - 1980 (1984)
*Ross A. Nielsen - BA., Wartburg College; M.S., Ph.D., University of Iowa Professor of Teaching
Head of the Department of Teaching - 1947 (1962)
-John A. Nietupski - B.A., M.S., Ph.D., University of Wisconsin, Madison Associate Professor of Special Education - 1980 (1984)
*Basheer K. Nijim - BA., 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)
Acting Head of the Department of Home Economics - 1985
*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)
Jon G. Norem - B.S., M.B.A., University of North Dakota; C.PA.
Assistant Professor of Accounting - 1973

[^7]*Michael David Oates - A.B., Fairfield University; M.A.T., Assumption College; Ph.D., Georgetown University
Professor of French - 1967 (1975)
Robert J. O'Brien - BA., University of Northern Iowa
Instructor of Teaching: Social Studies - 1984
*Tmothy E. O'Connor - BA., M.A., Creighton University; Ph.D., University of Minnesota
Assistant Professor of History - 1982
*Karl Edward Odwarka - Diplom, Akademie für Welthandel, Frankfurt; A.B., M.A., Wayne State University; Ph.D., University of Michigan

Proíessor of German - 1964 (1979)
*Dale W. 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 Professor of Biology - 1965 (1978)
Helen Otto - B.A., Athens School of Economics and Business; M.B.A., M.A., Ph.D., University of Houston
Assistant Professor of Economics - 1985
*John H. Page - B. of Design, University of Michigan; M.FA, University of Iowa Professor of Art - 1960 (1964)
Eugenia G. Parisho - B.A., University of Northern Iowa; M.A., University of Chicago
Assistant Professor of Teaching: Elementary Education - 1968
Hemy H. Parker - BA., St. Thomas College; MA., University of Minnesota; Ph.D., University of Illinois
Professor of Modern Languages - 1965 (1985)
Mahmoud Pegah - B.A., College of Mass Communication, Iran; M.S., Michigan State University
Assistant Professor of Computer Science - 1984
Michael J. Peitz - B.A., M.A., University of Northern Iowa
Instructor of Teaching: Language Arts - 1985
Alfred A. Pelham - B.B.A., M.B.A., University of Michigan
Assistant Professor of Marketing
Director, Small Business Development Center - 1983
Richard A. Penn - BA., University of Northern lowa; M.S.J., Medill School of Journalism, Northwestern University
Instructor of Marketing - 1979 (1983)
*Barbara E. Pershing - B.S., Western Illinois University; M.A., University of Northern Colorado; Ph.D., Iowa State University
Assistant Professor of Home Economics - 1971 (1976)
${ }^{\bullet}$ Rex W. Pershing - B.S., Western Illinois University; MA.Ed., University of Northern Iowa; Ed.D., University of Northern Colorado
Associate Professor of Industrial Technology - 1965 (1972)
Sandra L. Peters - BA. Pennsylvania State University; M.A., Indiana University Instructor in Culture and Intensive English Program - 1984
Elizabeth J. Peterson - A.B., M.S.L.S., University of Illinois; M.B.A., University of Northern Iowa
Instructor of Management - 1981 (1983)
Carol L. Phillips - B.Sc., The Ohio State University; M.A.T., Washington State University; Ed.D., University of Northern Colorado
Assistant Professor of Physical Education - 1975 (1984)
*Neil Phillips - BA., University of Northern Iowa; M.A., University of Houston; Ph.D., University of Kansas
Assistant Professor of Communication Studies - 1981
*Warren E. Picklum - B.A., Colorado State University; M.S., Ph.D., Iowa State University
Associate Professor of Biology - 1957 (1974)
${ }^{*}$ Douglas T. Pine - B.S., State University of New York, Oswego; M.A., Trenton State College; Ph.D., The Ohio State University
Associate Professor of Industrial Technology - 1973 (1981)
Nancy McClain Pittman - B.S., Southeast Missouri State University; MA., George Washington University; Ph.D., Texas Woman's University
Assistant Professor of Recreation - 1983

[^8]*Bruce L. Plakke - B.A., M.A., Western Michigan University; Ph.D., Memphis State University
Assistant Professor of Audiology - 1978
Paul J. Porter - BA., MA., Ed.S., University of Northern Iowa; Ed.D., Drake University
Assistant Professor of Education — 1967 (1970)
-Lois S. Potter - BA., Hankton College; MA., University of Iowa; Ph.D., University of Wisconsin
Professor of Teaching: Speech Pathology - 1950 (1972)
*Dan Powell - BA., M.A., Central Washington University; M.FA., University of Illinois
Assistant Professor in Art - 1980 (1982)
W. Dean Primrose - BA., MA. University of Northern Iowa

Assistant Professor of Teaching: Business Education - 1973 (1976)
*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 - BA., Grinnell College; M.FA., University of Iowa
Associate Professor of English - 1966 (1975)
"Allen Rappaport-B.S., M.B.A., University of South Carolina; Ph.D., University of Texas, Austin
Associate Professor of Management - 1982
*Donna B. Raschke - B.S., Oklahoma State University, Stillwater; M.S., Ph.D., University of Wisconsin, Madison
Associate Professor of Special Education - 1979 (1985)
*Ned H. Ratekin - BA., Parsons College; MA., Ph.D., University of Iowa Professor of Education - 1966 (1971)
*Edward C. Rathmell—BA., Central College, Pella; MA.Ed., Western Washington University; Ph.D., University of Michigan
Professor of Mathematics - 1972 (1982)
*Jack C. Reed - BA., M.A., University of Northern Iowa; Ed.D., University of Nebraska
Associate Professor of Information Management
Teacher Educator in Office Education - 1965 (1969)
*Martha J. Reineke - B.A., Earlham University; M.A., Ph.D., Vanderbilt University
Assistant Professor of Religion - 1984
*Thomas J. Remington - B.A., Regis College, Colorado; M.A., Ph.D., Kansas State University
Professor of English — 1970 (1983)
Byron B. Renz - B.S., Northwestern University, Evanston; Ed.M., Rutgers University, New Jersey; Ph.D., Wayne State University, Detroit
Assistant Professor of Broadcasting - 1983
Mary Ann Renz - B.A., Western Michigan University; M.A., Ph.D., Wayne State University, Detroit
Assistant Professor of Communication Studies - 1983
*Basil J. Reppas - B.A., Athens University, Greece; M.A., American University of Beirut, Lebanon; Ph.D., University of Iowa
Professor of Education - 1961 (1976)
Stefan Reuss - Performers Certificate, Hanover Hochschule for Music and Theatre; M.Mus., Julliard School of Music
Assistant Professor of Violoncello - 1980 (1982)
Jane E. Richards - B.S., Bradley University; M.S., Ph.D., Southern Illinois University
Assistant Professor of Health Education - 1982
Nathaniel I. Richmond - B.A., State University of New York, Buffalo; M.A., Ph.D., George Washington University
Assistant Professor of Political Science - 1985
*Erwin W. Richter - B.S., Northern Michigan University; M.A., University of Northern Iowa; Ph.D., University of Iowa
Associate Professor of Chemistry - 1963 (1972)
*Paul E. Rider - BA., Drake University; M.S., Iowa State University; Ph.D., Kansas State University
Professor of Chemistry - 1969 (1979)
Dixon L. Riggs - BA., Marietta College, Ohio; M.S., University of Michigan Associate Professor of Biology - 1958 (1970)
*Glenda Riley - BA., Western Reserve University; M.A., Miami University of Ohio; Ph.D., Ohio State University
Professor of History - 1969 (1977)
*Janet McMillan Rives - BA., University of Arizona, M.A., Ph.D., Duke University
Associate Professor of Economics - 1984
*Jan C. Robbins - B.A., Pennsylvania State University; M.A., Ph.D., University of Minnesota
Professor of English
Head of the Department of English Language and Literature - 1976
Kenneth G. Roberts - B.S., University of Minnesota; MA., Washington State University
Instructor in Design and Human Environment of Home Economics - 1982 (1984)
*Ronald E. Roberts - B.A., Drake University; M.A., Ph.D., Louisiana State University
Professor of Sociology — 1969 (1976)
*James B. Robinson - B.A., Wabash College; M.A., Ph.D., University of Wisconsin
Associate Professor of Religion - 1971 (1980)
Michael O. Rod - BA., Luther College; MA., University of Northern Iowa; Ph.D., University of Minnesota; C.PA.
Assistant Professor of Accounting - 1972 (1977)
Bruce C. Rogers - B.S., Ohio University; M.A., Appalachian State University; Ed.D., North Carolina State University
Assistant Professor of Industrial Technology - 1985
*Bruce G. Rogers - B.S., MA., Arizona State University; Ph.D., Michigan State University
Associate Professor of Education - 1975
Randall A. Rose - BA., Eastern Montana College; MA., University of Montana; Ph.D., Purdue University, Indiana
Assistant Professor of Communication Studies - 1982
Stephen A. Rose - B.S., M.B.S., Ph.D., Ohio State University
Associate Professor of Teaching: Social Studies - 1979 (1984)
Charlotte Rosenthal - BA., Cornell University; MA., University of Chicago; Ph.D., Stanford University
Assistant Professor of Russian - 1985
*Robert L. Ross-BA., University of Northern Iowa; MA., Columbia University; Ph.D., Michigan State University
Professor of Political Science
Head of the Department of Political Science - 1962 (1971)
*Ronald D. Ross - BA., Marshall University, West Virginia; M.Mus., Indiana University; Ph.D., University of Cincinnati
Professor of Theory
Director of School of Music - 1975 (1982)
Roberta M. Roth - B.S., Iowa State University; M.BA., University of Minnesota Instructor of Management - 1980 (1982)
Julia J. Rozendaal - BA., MA., Ed.S., University of Northern Iowa
Assistant Professor of Education - 1966 (1969)
Randy L. Ruchotzke - B.S., Iowa State University
Instructor in Mathematics - 1985
M. Susan Rueschhoff - B.S.Ed., University of Nebraska, Lincoln; M.BA., Indiana State University; Ph.D., University of Nebraska-Lincoln
Assistant Professor of Management - 1985
Robert L. Rule - B.S., M.S., Ph.D., Iowa State University
Assistant Professor of Mathematics - 1966 (1977)
*Edward Rutkowski - B.S., Marquette University; M.A., Ph.D., Michigan State University
Professor of Education - 1963 (1970)
Richard A. Rutledge - BA., University of Denver; MA., Wheaton College
Adjunct Instructor of Broadcasting - 1985
Thomas G. Ryan - B.S.C., M.A., University of Iowa
Associate Professor of History - 1960 (1980)
*Roy H. Saigo - B.A., University of California, Davis; Ph.D., Oregon State University
Professor of Biology
Dean of the College of Natural Sciences - 1984
Gene Sandell - BA., M.BA., University of Northern Iowa
Instructor of Accounting - 1984
*Roy E. Sandstrom - BA., Williams College; M.A., Ph.D., State University of New York, Buffalo
Associate Professor of History - 1969 (1978)
Paul Sannerud - BA., Augsburg College; M.FA., University of Minnesota Assistant Professor of Theatre Design and Technology - 1985
John A. Schibrowsky - B.S., University of Wisconsin, Superior; M.BA., University of Northern Iowa
Instructor of Marketing - 1980 (1982)
Otis R. Schmidt - B.J., M.J., University of Texas, Austin; MA., Sam Houston State College
Assistant Professor of English — 1965 (1968)
*Donald W. Schmits - BA., University of Evansville; M.S., Southern Illinois University; Ed.D., Rutgers University
Associate Professor of Education - 1976
Charles B. Scholz - B.S.Ed., M.A., Northern Illinois University
Assistant Professor of Broadcasting - 1969 (1976)
John E. Shultz - B.S.E., MA., Northeast Missouri State University
Instructor of Industrial Technology - 1985
*Augusta L. Schurrer - BA., Hunter College; MA., Ph.D., University of Wisconsin, Madison
Professor of Mathematics - 1950 (1963)
Lymn C. Schwandt - BA., Coe College; MA., University of Northern Iowa
Associate Professor of Teaching: Mathematics - 1964 (1973)
*Jane K. Sherwin Schwartz - BA., Rockford College; MA., Middlebury College; Ph.D., University of Michigan
Professor of French - 1962 (1972)
*Orlando A. Schwartz - BA., M.A., California State University, Long Beach; Ph.D., University of Kansas
Assistant Professor of Biology - 1980
*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 - BA, MA., University of Northern Iowa; Ed.D., University of Wyoming
Associate Professor of Physical Education
Administrative Assistant, HPER - 1969 (1976)
*Ralph S. Scott - BA., 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)
*Robert D. Seager - BA., University of California, Santa Barbara; Ph.D., University of California, Davis
Associate Professor of Biology - 1981 (1985)
Marjorie Shaw - BA., M.A., University of Northern Iowa
Instructor of Education - 1980 (1984)
*Donald E. Shepardson - B.S., Eastern Illinois University; MA., Ph.D., University of Illinois
Professor of History - 1970 (1979)
William J. Shepherd - B.S.Ed., M.FA., Ohio University
Associate Professor of Bands and Low Brass - 1976
Allan Shickman - B.FA., Washington University, St. Louis; MA., University of Iowa
Assistant Professor of Art — 1970 (1977)
*Canolyn L. Shields - BA., Ph.D., University of Texas, Austin
Associate Professor of English - 1976 (1983)
Vera Jo Siddens - BA., MA., University of Northern Iowa
Associate Professor of Art - 1968 (1984)
*Robert J. Simpson - BA., Houghton College; M.S., Ph.D., University of Illinois
Associate Professor of Biology — 1965 (1968)

[^9]James C. Skaine - BA., Sioux Falls College; MA., University of South Dakota Assistant Professor of Communication Studies - 1965
*Joseph J. Smaldino - B.S., Union College, New York; M.A., University of Connecticut; Ph.D., University of Florida
Associate Professor of Audiology
Head of the Department of Communicative Disorders - 1984
David T. Smalley - B.Mus., M.Mus., University of Michigan
Associate Professor of Voice - 1964 (1977)
*Audrey L. Smith - A.B., Kentucky Wesleyan College; M.A., Northwestern University; MA.Ed., Ed.D., Ball State University
Assistant Professor of Education - 1973
*Daryl D. Smith - B.A., University of Iowa; M.S., University of South Dakota; Ph.D., University of Iowa
Professor of Biology and Science Education
Head of the Department of Biology - 1967 (1982)
*John Kenneth Smith - B.S., M.A., Ph.D., University of Wisconsin
Professor Education - 1971 (1985)
*John W. Somervill - BA., Rhodes College; MA., University of Mississippi; Ph.D., University of Arkansas
Professor of Psychology - 1975 (1979)
Michael W. Sonnleitner - B.A., Whitman College; M.A., Ph.D., University of Minnesota
Assistant Professor of Political Science - 1985
Mark A. Sorensen - BA., MA., University of Iowa
Adjunct Instructor of Broadcasting - 1984
Gary S. Soroka - B.S., MA., Pennsylvania State University; Ed.D., University of Massachusetts, Amherst
Assistant Professor of Teaching
Coordinator of Student Teaching - 1984
*Joanne K. Spaide - B.S., University of Illinois; M.S., Ph.D., University of Iowa
Associate Professor of Home Economics - 1974 (1978)
Douglas W. Sprague - BA., Northwestern College; M.A., University of Northern Iowa
Instructor of Teaching: Social Studies - 1985
Bonnie Stahlecker - B.FA., University of South Dakota; M.FA., University of Wisconsin
Assistant Professor of Art - 1985
Richard Stahlhut - B.A., Northern Illinois University; MA., Western Michigan University
Assistant Professor of Teaching
Coordinator of Student Teaching - 1969 (1972)
*Susan B. Stainback - B.S., Radford College, Virginia; M.Ed., Ed.D., University of Virginia
Professor of Special Education - 1974 (1983)
*William C. Stainback - B.S., Atlantic Christian College; M.S., Radford College, Virginia; Ed.D., University of Virginia
Professor of Special Education - 1974 (1979)
*Benedict R. Stavis - B.A., Haverford College; M.A., Ph.D., Columbia University Assistant Professor of Political Science - 1983
*Gregory P. Stefanich - B.S., M.S., University of Minnesota; Ed.D., University of Montana
Professor of Education - 1976 (1981)
*Jerry D. Stockdale - B.S., M.S., Ph.D., Iowa State University
Professor of Sociology - 1973 (1980)
Acting Dean of the College of Social and Behavioral Sciences - 1985
Susan E. Stodghill - B.A., M.A., University of California, Davis
Instructor in Physical Education - 1983
*Marilyn D. Story - B.A., Ohio Wesleyan University; MA., University of Michigan; Ph.D., Michigan State University
Professor of Family Studies, Home Economics Department - 1968 (1983)
*Marlene I. Strathe - B.S., M.S., Iowa State University; Ed.S., University of Northern Iowa; Ph.D., Iowa State University
Associate Professor of Education
Associate Dean, College of Education - 1976 (1984)
*Regular graduate faculty member.

Christine Streed - BA., University of Northern Iowa; M.A., M.FA., University of Iowa
Assistant Professor of Art - 1984 (1985)
*Charles T. Strein - B.A., University of Northern Iowa; M.A.T., Purdue University; M.S., Ph.D., University of Illinois
Assistant Professor of Economics - 1970
Elizabeth J. Strub - B.A., MA., University of Northern Iowa
Assistant Professor of Teaching: Elementary Education - 1972 (1981)
*Richard F. Strub - B.A., University of Northern Iowa; MA., University of Northern Colorado; Ed.D., University of South Dakota
Associate Professor of Teaching: Counseling - 1964 (1973)
Clare Struck - BA., MA., University of Northern Iowa
Instructor of Teaching: Counseling - 1983
Godfrey (Garf) Stych - B.S.P.E., MA., University of Iowa
Assistant Professor of Physical Education - 1966 (1969)
*Alvin R. Sunseri - BA., Southeastern Louisiana University; M.A., Ph.D., Louisiana State University
Professor of History - 1967 (1975)
Linda Lou Sunseri - BA., MA., University of Northern Iowa
Instructor of Sociology — 1981 (1982)
Annette C. Swann - B.A., Murray State University; M.A., Columbia University; Ed.D., Indiana University
Instructor of Teaching: Art - 1983
*Harvey Sweet - B.S., Eastern Michigan University; M.S., Ph.D., University of Wisconsin
Professor of Theatre - 1974 (1985)
*Alice S. Swensen - BA., University of Iowa; M.A., Ph.D., Oklahoma State University
Assistant Professor of English — 1978
*Robert D. Talbott - A.B., A.M., Ph.D., University of Illinois
Professor of Latin American History - 1967 (1974)
*John E. Tarr - B.S.C., University of Iowa; MA., University of Northern Iowa; Ph.D., University of Iowa
Professor of Teaching: Mathematics - 1961 (1974)
*Nick E. Teig - B.A., M.A., University of Northern Iowa; Ed.D., University of Nebraska, Lincoln
Associate Professor of Teaching: Industrial Technology - 1967 (1977)
*E. Russell TePaske - B.A., Westmar College; M.A., University of Northern Iowa; Ph.D., Oklahoma State University
Professor of Biology - 1963 (1971)
*Shivesh C. Thakur - BA., MA., Patna University, India; Ph.D., University of Durham, England; Diploma, University of Oxford, England
Professor of Philosophy
Head of the Department of Philosophy and Religion - 1984
*Dianne L. Thiessen - B.A., South Dakota State University; M.S.Ed., Ph.D., Southern Illinois University, Carbondale
Associate Professor of Mathematics - 1978 (1983)
Cathy L. Thompson - B.A., Lycoming College; M.Ed., Bloomsburg State University; Ph.D., Pennsylvania State University
Assistant Professor of Curriculum and Instruction: Early Childhood and Elementary Education - 1985
*Donna J. Thompson - BA.Ed., Western Washington University; M.A., Wheaton College; Ph.D., The Ohio State University
Associate Professor of Physical Education - 1975
*Howard J. Thompson - BA., M.A., University of Iowa; A.M., Ph.D., Harvard University
Professor of History - 1955 (1966)
*Marion R. Thompson - B.S., M.S., Southern Illinois University; Ed.D., Hlinois State University
Professor of Special Education
Head of the Department of Special Education - 1978
Nancy Price Thompson - B.A., Cornell College; MA., University of Northern Iowa
Professor of English - 1979
*Thomas H. Thompson - B.A., M.A., Ph.D., University of Iowa
Professor of Philosophy
Dean of the College of Humanities and Fine Arts - 1952 (1982)

Instructional Staff
*William R. Thrall - B.S., Wisconsin State University, LaCrosse; M.S., University of Colorado; Ph.D., University of Iowa
Professor of HPER: Physical Education
Director of the School of Health, Physical Education and Recreation - 1960 (1979)

Gordon A. Timpany - B.Ed., Wisconsin State University, Whitewater; MA., University of Minnesota
Assistant Professor of Information Management - 1967
Abolghassem Tolu Honary - B.S., College of Higher Technical Teacher Training, Babol, Iran; M.S., Mankato State University; D.I.T., University of Northern Iowa
Assistant Professor of Industrial Technology - 1982 (1983)
Thomas J. Tritle - B.Mus., Baldwin-Wallace College; Teaching Certificate, South Dakota State University; M.Mus., New England Conservatory
Instructor of French Horn - 1980
*Jean Ann Trout - B.S.Ed., Wittenberg University; M.A., Ball State University; Ed.D., Indiana University
Associate Professor of Education - 1970 (1976)
${ }^{*}$ Roy D. Unruh - B.A., Bethel College; MA., University of Minnesota; Ed.D., University of Northern Colorado
Associate Professor of Physics and Science Education - 1967 (1978)
*Dhirendra K. Vajpeyi - Siddhantalankar, Arya Samaj, India; B.A., MA., (English Literature), Lucknow University; MA., (Public Administration), Lucknow University; M.A., Ph.D., Michigan State University
Professor of Political Science - 1969 (1979)
*Leo A. W. van Lier - MA., Ph.D., Lancaster, England
Assistant Professor of English - 1984
Patrick G. Van Rossum - B.S., University of Wisconsin, LaCrosse; M.S., University of Tennessee
Instructor in Physical Education - 1985
Majorie E. Vargas - B.S., M.S., University of Wisconsin
Assistant Professor of Teaching: Language Arts - 1964 (1970)
*Ann S. Vernon - B.A., M.A., Ph.D., University of Iowa
Associate Professor of Education - 1973 (1982)
*Nile D. Vernon - B.A., Central College, Iowa; M.A., University of Nebraska; Ph.D., University of Iowa
Associate Professor of Spanish - 1966 (1976)
Francis D. Vilmain - B.A., University of Northern Iowa; M.S., University of Wisconsin
Associate Professor of Physics - 1965 (1974)
Nicholas W. Vollendorf - B.S., University of New Mexico; Ph.D., University of Wisconsin
Assistant Professor of Chemistry - 1985
Paul J. Waack - B.S., University of Dubuque; M.A., University of Iowa
Instructor of Teaching: Physical Education - 1982
*William L. Waack - BA., University of Northern Iowa; M.A., Ph.D., University of Iowa
Associate Professor of Teaching: Language Arts - 1977 (1983)
*David A. Walker - B.S., Missouri Valley College; M.A., Louisiana State University; Ph.D., University of Wisconsin, Madison
Professor of History - 1975 (1983)
*Julia E. Wallace - B.S., State University of New York, Oswego; M.A., Ph.D., State University of New York, Binghamton
Associate Professor of Psychology - 1978 (1983)
*Robert J. Waller - B.A., M.A., University of Northern Iowa; D.B.A., Indiana University
Professor of Management
Dean of the School of Business - 1968 (1980)
*Stanley J. Walljasper - B.A., M.S., Ph.D., University of Iowa
Associate Professor of Computer Science - 1975
*Linda L. Waloh - B.S., University of Illinois, Chicago; M.A., Ph.D., University of Chicago
Associate Professor of Psychology - 1975 (1980)
*James C. Walters - B.A., Grand Valley State College, Michigan; M.Phil., Ph.D., Rutgers-The State University of New Jersey
Associate Professor of Geology - 1975 (1982)
André Walther - B.A., University of Northern Iowa; M.A., Michigan State University
Assistant Professor of French - 1964
*Robert J. Ward - BA., University of Akron; MA., Ohio State University; Ph.D., University of Missouri
Professor of English - 1963 (1974)
*Robert T. Ward - B.A., Amherst College; M.A., Ph.D., Harvard University Associate Professor of Physics and Science Education - 1975
Shelley Ward - B.M.E., Baylor University; MA., University of Northern Iowa Lecturer of Suzuki Talent Education Program - 1984
*S. ENon Warner - B.S., M.S., Brigham Young University; Ed.D., Arizona State University
Professor of Information Management - 1975
Acting Dean of the School of Business - 1985
Robert P. Washut - B.Mus., M.Mus., Arizona State University; D.Mus., University of Northern Colorado
Assistant Professor of Jazz Studies - 1980
Carl T. Webster - B.A., Kansas Wesleyan University; M.B.A., Drake University Instructor of Management - 1985
*John F. Wedman - B.S., M.Ed., Ph.D., University of Oklahoma
Assistant Professor of Education - 1981
Judy Wedman - B.S., M.S., Central State University, Oklahoma; Ph.D., University of Oklahoma
Assistant Professor of Teaching
Coordinator of Student Teaching - 1981 (1984)
Carl O. Wehner - B.A., MA., University of Northern Iowa
Assistant Professor of Computer Science - 1961 (1966)
Wanda P. Wehner - B.A., M.A., University of Northern Iowa
Assistant Professor of Chemistry - 1966 (1971)
James D. Welch - B.S., M.Ed., University of Missouri
Associate Professor of Teaching: Music - 1962 (1972)
Joel W. Wells - B.S., Ohio University; M.A., Western Carolina University; Ph.D., University of Connecticut
Assistant Professor of Home Economics - 1981
Donald B. Wendt - B.Mus., Northwestern University; M.A., University of Northern Iowa
Associate Professor of Woodwinds - 1958 (1969)
Richard L. West - B.A., M.A., Illinois State University
Adjunct Instructor of Communication Studies - 1984
Mary T. Whalen - BA., Clarke College; MA., University of Northern Iowa Instructor in Mathematics - 1985
*Michael R. White - B.S., Northern Illinois University; MA.Ed., University of Georgia; Ph.D., The Ohio State University
Professor of Industrial Technology - 1979
*Donald R. Whitnah - BA., MA., Ph.D., University of Illinois, Urbana
Professor of History
Head of the Department of History - 1959 (1969)
*David A. Whitsett - B.A., Pennsylvania State University; M.S., Ph.D., Case Western Reserve University
Professor of Psychology - 1974 (1979)
*Paul D. Whitson-B.S., M.S., Baylor University; Ph.D., University of Oklahoma Professor of Biology - 1972 (1981)
Melba Rae Widmer - B.A., M.A., University of Iowa
Assistant Professor of Home Economics - 1979
Donald E. Wiederanders - B.S., Wartburg College; M.A., University of Minnesota Professor of Teaching: Mathematics - 1958 (1975)
Russell A. Wiley - B.A., M.A., University of Northern Iowa
Assistant Professor of Chemistry - 1967 (1971)
*Jack D. Wilkinson - B.A., M.A., University of Northern Iowa; Ph.D., Iowa State University
Professor of Mathematics - 1962 (1975)

Ruth E. Williams - B.Mus., M.Mus., Indiana University
Instructor of Voice - 1983
*James M. Wilmesmeier - B.A., St. John's University, Minnesota; M.A., Washington University; Ph.D., University of Iowa
Assistant Professor of Management - 1976
-Barry J. Wilson - B.A., Immaculate Conception Seminary; M.S., Creighton University; Ph.D., University of Missouri
Associate Professor of Education - 1973 (1980)
*Hoyt G. Wilson - B.S., Stanford University; M.S., M.B.A., Michigan State University; Ph.D., Pennsylvania State University
Associate Professor of Management - 1977 (1979)
Joseph L. Wilson - B.S., Nebraska Wesleyan University; MA., University of Iowa; Ed.D., Virginia Polytechnic Institute and State University
Assistant Professor of Recreation - 1985
Neil B. Wilson - B.S., Louisiana Technical University; M.S., University of Missouri, Columbia
Associate Professor of Marketing
Coordinator of School of Business External Services - 1982 (1985)
*Nixon A. Wilson - BA., Earlham College; M. Wildife Management, University of Michigan; Ph.D., Purdue University
Professor of Biology - 1969 (1975)
*Robley C. Wilson - B.A., Bowdoin College; M.FA., University of Iowa Professor of English
Editor of North American Review - 1963 (1975)
Francis J. Winter-B.A., University of Dubuque; M.A., Ph.D., University of Iowa Assistant Professor of Political Science - 1965
Paul Winter -- BA., Michigan State University; MA., Ohio State University; M.I.M., American Graduate School of International Management

Instructor of Marketing - 1984 (1985)
*Harold B. Wohl - B.A., MA., Ph.D., University of Iowa
Professor of History - 1956 (1969)
Joanne Wolfe - B.A., M.A., University of Northern Iowa
Assistant Professor of Teaching: Elementary Education - 1967 (1973)
*Ching S. Woo - B.A., Cornell University, New York; M.S., University of Michigan; Ph.D., University of Kentucky
Professor of Chemistry - 1967 (1978)
Evelyn S. Wood - A.B., Marshall University; MA., University of Michigan Associate Professor of English — 1966 (1974)
*Robert W. Wyatt - B.A., University of Northern Iowa; Ph.D., University of Iowa Assistant Professor of Management - 1980
*Jack B. Yates - B.A., University of Arkansas; M.A., Ph.D., The Johns Hopkins University
Associate Professor of Psychology - 1975 (1980)
H. Marcus Yoder-B.A., Bethel College, Kansas; M.A., Ph.D., University of Iowa Associate Professor of Teaching: Elementary Education - 1971 (1982)
*Mahmood Yousefi- B.A., California State University; M.A., Ph.D., University of California, Santa Barbara
Associate Professor of Economics - 1981
Stephen C. Zerwas - B.A., Maryville College, Tennessee; MA., University of Iowa Instructor of Human Relations -- 1985
*George K. Zucker-B.A., Queens College, New York; M.A., Ph.D., University of Iowa
Professor of Spanish — 1968 (1974)

## Librarians

*Donald O. Rod - A.B., Luther College; A.B.L.S., University of Michigan Director of Library Services
Professor of Library Science - 1953 (1966)
*H. Wendell Alford - BA., 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)
Eleanor B. Crownfield - BA., Smith College; M.S.L.S., Simmons College Catalog Librarian and Assistant Professor - 1964 (1977)
Donald W. Gray - A.B., Asbury College; B.D., Emory University; M.A.L.S., University of Minnesota
Associate Professor
Assistant Director of Library Services - 1967 (1975)
Douglas M. Hieber - A.B., Cornell College; M.S.L.S., University of Illinois Head of Circulation and Associate Professor - 1967 (1977)
Thomas L. Kessler - B.G.S., M.A.L.S., M.B.A., University of Iowa
Reference Librarian and Instructor - 1983
Lawrence W. Kieffer - B.A., M.A.L.S., University of Minnesota
Head of Reader Service and Associate Professor - 1969 (1977)
Lucille J. Lettow - BA., University of Northern Iowa; M.A., University of Missouri; M.A., University of Northern Iowa
Youth Collection Librarian and Assistant Professor - 1980 (1985)
Stanley P. Lylle - B.A., University of Northern Iowa; M.A.L.S., University of Iowa; M.BA., University of Northern Iowa

Reference Librarian and Assistant Professor - 1977 (1982)
Fred Y.M. Ma - B.L.L., Sun Yat-sen University, China; MA., B.S.L.S., University of Minnesota
Head of Cataloging and Associate Professor - 1960 (1968)
Jessica A. Marshall - B.S., Grove City College; M.L.S., University of Pittsburgh Head of Acquisitions and Assistant Professor - 1978 (1983)
Katherine F. Martin - A.B., Douglas College, Rutgers; M.S.L.S., M.A., University of North Carolina
Order and Bibliographic Control Librarian and Assistant Professor - 1982 (1985)
Gretchen M. Myers - B.A., University of Iowa; M.A.L.S., Rosary College, Illinois Reference Librarian and Assistant Professor - 1967 (1972)
Judy L. Myers - B.A., University of Iowa; M.A.L.S., University of Wisconsin Catalog Librarian and Assistant Professor - 1967 (1975)
Elizabeth Parang - B.S., Western Montana College; M.Lib., University of Washington
Serials Librarian and Instructor - 1984
Gerald L. Peterson - A.B., A.M., M.S.L.S., University of Illinois
Reference and Special Collections Librarian and Assistant Professor - 1974 (1978)

Verna F. Ritchie - BA., Hunter College; M.A., McGill University; MA.L.S., University of Michigan
Art and Music Librarian and Professor - 1966 (1985)
Charles A. (Tony) Schwartz - B.A., Denison University; Ph.D., University of Virginia; M.L.S., Indiana University
Bibliographer and Assistant Professor - 1985
James T. Shaw - B.A., Sonoma State University; M.S.L.S., University of North Carolina
Reference Librarian and Instructor - 1985
Edward F. Wagner - B.S., University of Wisconsin; B.S., Wisconsin State College, Eau Claire; M.A.L.S., University of Wisconsin
Reference Librarian and Associate Professor - 1958 (1978)
Barbara E. Weeg - B.S., Iowa State University; MA., University of Iowa Reference Librarian and Instructor - 1981
Patrick J. Wilkinson - BA., MA., Drake University; M.L.S., Indiana University Documents and Maps Librarian and Assistant Professor - 1980 (1983)

[^10]

## A

Absences, 56
Abstract of dissertation, Filing of, 138
Abstract of thesis, 113
Academic Advising, 29, 212
Academic Computing Services, 37, 210
Academic Ethics Policies, 60-61
Academic Load, 55
Certification, 52, 113
Extension students, 58
Academic Program Load, Graduates, 55, 109
Undergraduates, 55
Academic Suspension, 57
Academic Warning, 57
Accident and Sickness Insurance, 30
Accommodations, living, 29
Accounting, 8
Courses, 145-146
Major(s) and/or minor(s), 63, 129
Staff, 63
Accreditation of the university, 5
Activities, 31-33
Music, 31, 175
Physical Education, 31
Recreation, 31-32
Speech/Theatre, 31
Administration, Veterans, 21, 109
Administrative Management Emphasis (see also: Information Management), 115
Administrative Officers, 209
Administrative Staff, 209-216
Admission Policies and Procedures, 13-19, 107-109
Application for, 16, 107
Conditional (provisional) admission to graduate study, 107
Health and Housing forms, 16, 109
Tests and Interviews, 16, 108
Transfer students, 13, 16, 109
Transcripts, 16, 107
Admissions,
Candidacy for
Doctor of Education degree, 137
Doctor of Industrial Technology degree, 139-140
Master's degree programs, 110-111
Specialist's degree programs, 133-134
Extension class work, 11, 58
Graduate students, 15, 107
Initial Admission (Doctor of Education), 136-137
Medical Technology, 42
Nursing programs, 41
Office of (director/staff), 209
Preparation for admission, 15
Provisional (graduate), 107
Resident and Non-resident Classification, 17-19
Standards, Regents General, 13
Teacher Education program, 45, 101
Tests, 16, 108, 111, 137, 139
Transfer students, 13-14, 16-17, 112
Undergraduate students, 13-15

Adult education (see: Continuing Education and Special Programs)
Advanced Placement Program, 60
Adviser and/or counselor,
Foreign Student, 29, 31
Graduate, 29, 39, 109
Undergraduate, 29, 55, 60
Advising, Academic, 29
Advisory Committee, Faculty
Doctor of Education, 137
Doctor of Industrial Technology, 139
Alumni Association, 36
Alumni Council, Student, 36
Alumni Scholarship, general, 36
Alumni Relations, 209
Director of, 209
American Chemical Society, 6
American Association of Colleges for Teacher Education (AACTE), 5
American Association of Collegiate Registrars and Admissions Officers, 13
American Association of School Administrators, 133
American College Tests, 16
American Home Economics Association, 6
American Speech-Language and Hearing Association, 6
American Studies
Major and/or minor, 103
Anthropology, 8
Courses, 205-208
Major(s) and/or minor(s), 99
Application fee (for admission), 13
Application for admission to
Candidacy for
Doctor of Education degree, 137
Doctor of Industrial Technology degree, 139
Master's degrees, 110-111
Specialist's degrees, 133-134
Graduate study, 107-109
Undergraduate study, 13-15
Application for Room in Residence Hall, 29
Applied Credit, 170, 175-176
Army Reserve Officers' Training Corps (AROTC), 43, 88
Scholarships, 25-26, 88
Art, 6
Courses, 178-180
Major(s) and/or minor(s), 63-64, 114
Scholarships, 25
Staff, 63
Art, Gallery of, 35, 211
Artists Series, 33
Asian Studies
Major and/or minor, 103
Assistant to the President for State Relations and Special Events, 209
Assistant, Resident, 29
Assistant Vice President, Academic Affairs, 55, 210
Assistantships, graduate and teaching, 110
Astronomy
Major and/or minor, 72
Athletics, 31
Athletics, Grants-in Aid, 26
Athletics, Intercollegiate,
Staff, 214-215

Athletic Training
Major and/or minor, 77
Attendance,
Class, 56
Commencement, 113, 134, 138, 141
Audio Production Services, 38
Audio Recording Technology
Major and/or minor, 92
Audio-Visual Instruction, 38
Audio-Visual Services Area, 38
Audiology
Courses, 174-175
Major and/or minor, 114-115
Audit (see also: Visitor), 59
Fee, 59
Awards and Scholarships, 25-27
Literature Search and Computer Use (or Bibliographic Search Awards), 113

## B

Bachelor's degree programs,
Curricula, 41-49
General Education requirements, 49-50
Second, 52
Bachelor of Arts degree, 41-44
Majors and minors, 44
Bachelor of Arts - Teaching Program, 44-45
Additional requirements, 52
Majors and minors, 45
Bachelor of Fine Arts degree, 46
Bachelor of Liberal Studies degree, 48
Bachelor of Music degree, 47
Bachelor of Science degree, 47
Bachelor of Technology degree, 47-48
Bands, concert and marching, 31
Batch Computing, 37
Billing (fees), 24
Biology, 8
Courses, 193-195
Lakeside Laboratory courses, 199
Major(s) and/or minor(s), 64-65, 115
Staff, 64, 212
Biotechnology
Major and/or minor, 65
Board and Room, 23, 29
Refunds for, 55-56
Board of Regents, State, 13-14, 209
Books and Supplies, approximate cost and availability, 23
Broadcasting Services, 6, 36
Staff, 212
Business, School of,
Dean of the School, 210
Departments, 8
Major(s) and/or minor(s), 63, 72-73, 83-85, 115, 129-130
Business Administration, Master of, 129-130
Business Communications
Major and/or minor, 68
Business Education graduate program (see also: Information Management), 115
Business Teaching major (see also: Information Management), 83, 115

## C

Calendar, University, 3
Campus, Description of, 5
Map, 249
Cancellation of Registration, 55
Candidacy, Graduate
Admission to, 107, 111-112, 133
Requirements for, 107, 111-112, 133
Career Services, 30
Staff, 212-213
Center for Urban Education, 38
Certificate, Registration, 23, 56
Certificates, Program, 50-51
Certificates, Teaching, 52
College recommendation, 52, 111
Endorsements, 52, 113, 125
For approval in various graduate majors, 113
In other states, 113
Iowa Community College, 113
Prerequisite for graduate degree, 107, 113, 133
Reinstatement, 52
Renewal, 52
Residence, credit and minimum time, 52
Temporary, 52
Types, 52
Chamber Music Series, 33
Change of Degree Program, 49
Change of Registration, 55
Fee, 23
Cheating, 60-61
Chemistry, 8
Courses, 195-196
Major(s) and/or minor(s), 65-66, 115
Staff, 65
Chemistry - Marketing
Major and/or minor, 66
Chinese (see: Modern Languages)
Choruses, 31
Classification of students, 55, 143
Clinics (see: Education, Learning and Instruction, Reading, Speech and Hearing)
Clothing and Textiles
Major(s) and/or minor(s), 81
Coaching minor/endorsement, 77-78
Colleges and Departments, 6-8
College-Level Examination Program (CLEP), 59
Fees, 59
College Student Personnel Services
Major(s) and/or minor(s), 127-128, 135
Commencement attendance, 113, 134, 138, 141
Committees
Departmental, 139
Student, 31-32
Thesis, 111
Common Professional Sequence (undergraduate), 45
Common Numbers, 143
Common Regulations and Requirements, master's degree programs, 132
Commons, The, 35
Communication and Theatre Arts, 6
Courses, 170-174
Major(s) and/or minor(s), 66-68, 116
Staff, 66, 212
Communications
Business Communications major and/or minor, 68, 74

## Center, 36

Communications/Public Relations major and/or minor, 67
Communications/Radio-TV major and/or minor, 67
Communications/Radio-TV - Business major and/or minor, 67
Communications and Training Technology major and/ or minor, 116
Competence, 51, 59
General Education requirements, 49-50
Graduation, required for, 66-68
Communicative Disorders, 6
Courses, 174-175
Major(s) and/or minor(s), 68, 114-115, 122-123
Staff, 68
Community classes, 11
Fee, 23
Community Health Education
Major and/or minor, 76-77
Community Recreation
Major and/or minor, 78-79
Comparative Literature
Major and/or minor, 75
Comprehensive examinations, 112
Computer Applications in Education
Major and/or minor, 125
Computer Information Systems
Major and/or minor, 86
Computer Science
Courses, 192
Major(s) and/or minor(s), 86, 87, 116
Computer use, awards for, 113
Computing Services, Academic, 37 Staff, 210
Conduct, student, 61
Conferences, Workshops, and Exhibits, 11
Conservation Camp, Iowa Teachers, 9
Consultative service, 11
Contents, Table of, 2
Continuing Education and Special Programs, Division of, 11 Dean of, 210
Controller's Office, 214
Cooperative Education Program, Courses, 58, 143
Cooperative Nursing - Medical Technology Programs, 42-43
Correspondence study, 11, 58, 112
Costs
Board and room, 23
Books and supplies, 23
Tuition, 23
(see also: Fees)
Councils
Interfraternity, 33
Panhellenic, 33
Counseling
Courses, 157
Major(s) and/or minor(s), 116, 128, 136
Counseling Services, 30
Staff, 212-213
(see also: Academic Advising)
Courses
Descriptions, 145-208
Dropping and adding, 55
Guide to Course Numbers, 143-144
Levels, 143
Load, 55
Numbers common to many departments, 143

Transfer adjustment of, 13-14
Credit
Activities, 51, 76
Applied, 170, 175-176
By examination, 58
Community class, 11
Correspondence, 11, 58, 112
Credit/No-Credit, 57-58
Evening class, 11
Extension class, 11,58
Independent study, 59
Loss of, 56
Maximum, 51, 55
Non-thesis plan, 111, 112
Open-credit, 58
Physical Education, 51
Radio and Television, 51, 112
Recency of, 112
Residence, 17-19, 112, 134, 137, 140
Research, 112, 138, 141, 143
Saturday, evening, and short-term classes, 11, 112
Second baccalaureate degree, 52
Student teaching, 45
Study abroad, 9-10
Study tours, 9-10
Thesis plan, 111, 112-113
Transfer, 12-13, 16
Workshops, 112
Credit by Examination, 58
Fee, 23
Maximum for graduation, 51
Credit/No-Credit grading, 57-58
Criminology
Major and/or minor, 99
Cultural opportunities, 33
Curricula
Adjustments for transfer students, 13-14
General Education, 49-50
Graduate
Doctor of Education program, 53, 136-138
Doctor of Industrial Technology program, 53, 138-141
Master of Arts program, 53, 107-114, 114-124
Master of Arts in Education program, 53, 107-114, 125-129
Master of Business Administration program, 53, 129-130
Master of Music program, 53, 130-131
Second Master's degree program, 114
Specialist's degree program, 53, 133
Specialist in Education degree programs, 53, 133-136
Undergraduate,
Bachelor of Arts, 41
Bachelor of Arts - Teaching program, 44
Bachelor of Fine Arts, 46
Bachelor of Liberal Studies, 48
Bachelor of Music, 47
Bachelor of Science, 47
Bachelor of Technology, 47-48
Other programs, 47, 50-51
Cooperative programs, 47
Joint programs, 47
Pre-professional (or joint) programs, 42
Curriculum and Instruction, 6
Courses, 151-152
Major(s) and/or minor(s), 68-71, 125-127, 134-136
Staff, 68
Subject fields
Elementary, 69
Middle School/Junior High, 70

Curriculum Coordinator
Major and/or minor, 135
Curriculum Laboratory, 37
Cytotechnology (joint program in), 42

## D

Dance
Major and/or minor, 78
Dean
Continuing Education and Special Programs, 210
College of Education, 210
College of Humanities and Fine Arts, 210
College of Natural Sciences, 210
College of Social and Behavioral Sciences, 210
Graduate College, 210
School of Business, 210
Dean's list, honors, 57
Debate, awards and scholarships, 25-27
Honor organizations, 32
Declaration of Major, 55
Degree requirements for
Bachelor of Arts, 41-45
Bachelor of Arts - Teaching, 41
Bachelor of Fine Arts, 46
Bachelor of Liberal Studies, 48-49
Bachelor of Music, 47
Bachelor of Science, 47
Bachelor of Technology, 47-48
Change in, 49
Doctor of Education, 138
Doctor of Industrial Technology, 141
Master of Arts, 114-124
Master of Arts in Education, 125-129
Master of Business Administration, 130
Master of Music, 130
Second Baccalaureate degree, 52, 108
Second Master's degree, 114
Specialist, 133
Specialist in Education, 134-136
Degree status, 107, 108, 139
Degree student, 107
Departments, 6-8
Courses of instruction, 143-208
Department of Public Instruction, Iowa, 52, 101, 113
Design and Human Environment
Major and/or minor, 81
Development, Office of, 210
Staff, 210
Dietetics Major and/or minor, 81
Dining Services, 29
Directors of offices/facilities, 209-216
Discrimination (Non-) Policy, 61
Dissertation, 137-138, 140-141
Distributive Education Teacher-Coordinator, 58
Doctor of Education,
Academic Load, 136
Admission, application for, 136
Admission to candidacy, 137
Admission, types of,
Degree status, 136
Provisional degree status, 137
Advisory Committee, Faculty, 137
Application for graduation, 138

Areas of Intensive Study,
Counseling, 136
Curriculum and Instruction, 136
Educational Administration, 136
Reading, 136
School Psychology, 136
Special Education, 136
Attendance at commencement, 138
Credit,
Recency, 137
Residence, 137
Transfer, 137
Department committee, 137
Dissertation,
Abstract of, 138
Examination, 137
Fees for, 138
Filing of, 138
Manual, 138
Proposal, 137
Examinations,
Comprehensive Examination, 137
Dissertation Examination, 137
Graduate Record Examination, 137
General Regulations, 137
Graduation
Application for, 138
Attendance at Commencement, 138
Level of courses, 137
Microfilm agreement, 138
Program requirements, 138
Scholarship requirements, 137
Time limitation, 137
Doctor of Industrial Technology,
Academic load, 140
Admission, application for, 139
Admission to candidacy, 139-140
Admission, types of,
Degree status, 139
Provisional degree status, 139
Advisory Committee, Faculty, 139
Application for graduation, 141
Attendance at commencement, 141
Credit,
Recency, 140
Required for graduation, 140
Residence, 140
Transfer, 140
Department committee, 139
Dissertation,
Abstract of, 140
Examination, 140
Fees for, 140-141
Filing of, 140
Manual, 141
Examinations, 140
Graduate Record Examination, 140
Departmental Candidacy, 140
Comprehensive, 140
General Regulations, 140
Graduation Requirements, 141
Level of courses, 140
Microfilm agreement, 140
Program requirements, 141
Publication, 140
Research, 141

Scholarship requirements, 140
Dormitories (see: Residence Halls)
Double major, 52
Drama
Courses/programs (see: Communication and Theatre Arts)
Extracurricular activities, 31
Dropping courses, 55
Duplication, 56

## E

Early Childhood Education
Major(s) and/or minor(s), 68-69, 125
Earth Science, 8
Courses, 196-198
Major(s) and/or minor(s), 71-72, 116
Staff, 71
Economics, 8
Courses, 200
Major(s) and/or minor(s), 72-73
Staff, 72
Education, College of,
Dean of the College, 210
Departments, 6
Education (doctoral program), 136-138
Education of the Gifted
Major(s) and/or minor(s), 125
Education of the Handicapped
Major(s) and/or minor(s), 101
Education, Interdepartmental Courses, 149
Educational Administration and Counseling, 6
Courses, 155-156
Graduate majors, 127-128, 135-136
Staff, 73
Educational and Student Services,
Division of, 212-214
Vice President for, 209
Educational Clinic, The, 38
Educational Media
Courses, 153-154
Major(s) and/or minor(s), 71, 125
Educational Media Center, The,
Audio-Production, 38
Audio-Visual Services, 38
Communications Center, 38
Graphic and Photographic Services, 38
Media Laboratory, 38
Motion Picture Production, 38
Slide and Multi-Image Services, 38
Staff, 211
Television Services, 38
Educational Opportunity Grants, 24
(see also: Pell Grants)
Educational Opportunity Programs and
Special Community Services, 38-39
Educational Opportunity Program, 39
Ethnic Minorities Cultural and Educational Center, 39
Graduate Educational Opportunity Program, 39
Special Services Program, 38
Staff, 211
UNI Center for Urban Education (UNI-CUE), 38
Educational Psychology and Foundations, 6
Courses, 149-151
Graduate majors, 128, 136
Staff, 73

Elementary Education
Courses, 151-152
Major(s) and/or minor(s), 68-69, 126
Emeritus Faculty, 217-219
Employment of students, 24, 110
Endorsements, 52, 113, 125
English Language and Literarture, 6
Courses, 180-182
Major(s) and/or minor(s), 73-75, 116-118, 123, 123-124
Staff, 73
Subject field, 74
English/Modern Language programs, 75
Enrollment and Registration, 21, 55
Environmental/Conservation Education, 97
Environmental Perceptions
Major and/or minor, 103
Environmental Planning, Emphasis in, 97
Ethics, Academic, 60-61
Ethnic Minorities Cultural and Education Center, 39
European Studies
Major and/or minor, 79, 88
Evening classes, 11, 112
Examination Services, 29
Examinations and/or Tests
Admission, 13, 16, 108, 109, 110-111
Advance Placement Program, 60
Candidacy for
Doctor of Education degree, 137
Doctor of Industrial Technology degree, 139
Master of Arts degree, 111
Master of Arts in Education degree, 111
Master of Business Administration degree, 129
Master of Music degree, 130
Specialist in Education degree, 133
Specialist degree, 133
College-Level Examination Program (CLEP), 59
Comprehensive, 111, 112
Credit, 58, 59
Entrance, 13, 14, 108, 109, 111, 133, 137, 139, 140
Health, or physical, 16, 109
Non-thesis plan, 112
Orientation, 29
Thesis plan, 112
Transfer, 13, 14
Writing competency, 59
Exchange Programs
National Student Exchange, 9
Regents Universities Student Exchange, 9
Exhibits, 35
Expenses (see: Fees)
Extension
Classes, 11, 58
Community classes (adult education), 11
Consultative services, 11
Continuing education, 11
Correspondence study, 11, 58
Counseling, advisory senvice for adults, 11
Credit, 58
Fee, 23, 58
Publications, 11
Extracurricular activities, 31-33

Index

F
Facilities and Educational Services
Academic Computing Services, 37
Advanced Placement Program, 60
Art, Gallery of, 35
Broadcasting Services, 6,36
Center for Urban Education (UNI-CUE), 38
College-Level Examination Program (CLEP), 59
Commons, 35
Conferences and Workshops, 11
Continuing Education and Special Programs, 11
Curriculum Laboratory, 37
Educational Clinic, 38
Educational Media Center, 38
Educational Opportunity Programs, 38
Ethnic Minorities Cultural and Educational Center
(Culture House), 38
Exhibits, 35
Foreign Student Program, 31
General Studies Program, 49
Individual Studies Program, 10, 143
lowa Lakeside Laboratory, 8-9
lowa Teachers Conservation Camp, 9
Library, University, 9, 35
Malcolm Price Laboratory School, 39
Maucker Union, 35, 213
Museum, University, 35
National Student Exchange, 10
Public Relations, Office of, 36
Reading Clinic, 39
Regents Universities Exchange Program, 10
Saturday and Evening Classes, 11, 112
Speech and Hearing Clinic, 39
Study Abroad, 9-10
Faculty
Emeritus, 217-219
Instructional, 220-233
Library, 233
Faculty Advisory Committee
Doctor of Education, 137
Doctor of Industrial Technology, 139
Failed courses, 57
Family Life Education
Major and/or minor, 82
Family Services
Major and/or minor, 81
Family Student Housing, 29
Fee exemption (awards, loans, scholarships), 24-27
Fees,
Activity, 23
Admission, Application for, 23
Applied Music, 23
Basic, 23
Board and room, 23
Change of Registration, 23
College-Level Examination, 59
Community classes, 23
Computer Fee, 23
Correspondence study, 23
Credit by examination, 23
Deferred tuition payment, 23
Diploma replacement, 23
Dissertations, 138, 140-141
Enrollment, 23
Extension or television class, 23

Exemptions, 55-56
Housing, 23, 29
Identification card replacement, 23
Iowa Lakeside Laboratory, 23
Late registration fee, 23
Music, applied, 23
Non-resident, 23
Open credit, 23
Payment and billing, 24
Refunds, 55-56
Registration certificate replacement, 23
Reinstatement fee, 23
Remedial courses, 23
Returned check charge, 23
Summer Session, 23
Television classes, 23
Thesis binding, 113
Transcript, 23
Tuition
Deferred tuition payment, 24
Thition per credit hour, 23
Visitor (audit), 59
Workshops, 23
Writing Competency Examination, 23
Fees Schedule, 23
Filing of
Dissertation, 138, 140
Thesis, 113, 134
Thesis abstracts, 113, 134
Financial Aids and Student Employment, 24-27
College Work Study, 24
Employment, 24
Grants (Pell, SEOG), 24
Loans (GSL, NDSL), 24
Satisfactory Progress Scale, 24-25
Scholarships, 25-27
Staff, 213
Food Services, 29
Foods and Nutrition
Major(s) and/or minor(s), 81
Foreign Student Adviser, 31
Foreign Student Program, 31
Foreign studies
Major(s) and/or minor(s), 103, 105
Forensics, 31
Foundation, UNI, 36
UNI Foundation Fund Scholarships, 26-27
Four-year Curricula, 41
Fraternities, honor and social, 33
French (see: Modern Languages)
Further Work, Statement of, 55

## G

Gallery of Art, 35
General Education Program, 49
Requirements for, 49-50
General Information, 5-11
General Studies major, 11, 104
General Studies major program for
Registered Nurses, 41
Geography, 8
Courses, 204-205
Major(s) and/or minor(s), 75, 118
Staff, 75
Geology (see: Earth Science)

German (see: Modern Languages)
Gifted, Education of, 125
Government (see: Political Science)
Government, Student, 32
Grade Index, 56-57
Grade Points
Requirements, 45, 49, 51, 52, 56-57, 109, 134, 137, 140
Graduate Center, Quad-Cities, 107
Graduate College
Dean of the College, 210
Staff, 212
Graduate Educational Opportunity Program, 39
Graduate Program
Admission to candidacy, 110-111, 133, 137, 139
Admission to study, 107-109, 136, 139-140
Assistantships, 110
Certification and Endorsement, 113
Credit for undergraduate students, 60
Second master's degree, 114
Scholarships, 26, 110
Study,
Committees, 111, 138, 139
Majors for
Doctor of Education program, 136-138
Doctor of Industrial Technology program, 138-141
Master of Arts program, 114-124
Master of Arts in Education program, 125-129
Master of Business Administration program, 129-130
Master of Music program, 130-132
Specialist program, 133
Specialist in Education program, 133-136
Graduate Schools in the United States, Council of, 5
Graduate Student Organization, 32
Graduate Thesis Research Awards, 113
Graduation
Applications for, 52, 113, 134, 138, 141
Requirements for,
Bachelor's degrees, 51-52
Doctoral degrees, 138, 141
Master's degrees, 111-112
Specialist's degrees, 134
With honors, 57
Grants, Educational, 24
(see also: Pell Grants)
Graphic and Photographic Services, 38
Grievances, Academic (student), 61
Guaranteed Student Loan, 24
Guide to Course Numbers, 143

## H

Halls, Residence, 23, 29
Directors, 213
Health examinations, 16, 109
Health, Physical Education, and Recreation, School of, 6 Activities, 31
Courses
Health, 165-166
Physical Education, 166-168
Recreation, 168-169
Credit restrictions, 49, 50, 51
Major(s) and/or minor(s), 76-79, 119, 121
Requirements for graduation, 49, 50, 51
Staff, 76, 211
Health Service, Student, 30
Staff, 214

Hearing Clinic, Speech and, 39
History, 8
Courses, 202-204
Major(s) and/or minor(s), 79-80, 119
Staff, 79
Holidays for
Office personnel, 21
Students, 3
Home Economics, 8
Courses, 158-160
Major(s) and/or minor(s), 80-82, 119
Staff, 80
Subject field, 70, 82
Honor organizations, 32
Honors, graduating with, 57
Hospital service, 30
Housing
Applications for, 16, 29
Contracts, 16, 29
Deposit, 16, 30
Director of, 213
Family, 29
Fees, 23
Married Students, 29
Occupancy regulations, 29
Off-campus (food service), 29
Residence halls, 29
Units, men's and women's, 29
Human Relations
Courses, 149
Required for certification, 52, 69
Humanities
Courses, 184
Director of, 104
General Education requirements, 49-50
Major and/or minor, 104
Humanities and Fine Arts, College of, 6-7
Dean of the College, 210
Departments, 6-7

## I

I.D. (identification card), 56

Student Spouse, 33
Incomplete (unfinished) work, 56
(see also: Research Continued)
Independent study, 10, 11, 59, 143
Individual instruction, 59
Individual Studies Program
Individual study, 10-11, 143
Major, 11, 104
Readings, 10
Seminar, 11
Industrial Education Exposition Scholarship, 25
Industrial Technology, 8
Courses, 160-163
Doctor of Industrial Technology degree program, 138-141
Major(s) and/or minor(s), 82-83, 119, 123
Staff, 82
Subject field, 83
Information Management, 8
Courses, 148-149
Major(s) and/or minor(s), 83-84, 115
Staff, 83
Information services, 36
Institutes and Workshops, 9-10

Index

Instruction, Division of, 210-211
Instructional staff, 220-233
Instrumental music, 91
Insurance, Student Health and Accident, 30
Intent to Register, Notice of, 21
Intercollegiate Athletics, 31 Staff, 214-215
Interdisciplinary Courses and Programs American Studies major, 103
Asian Studies major and minor, 103
Environmental Perceptions minor, 103-104
General Studies major, 104
Humanities courses, 184
Humanities major and minor, 104
Human Relations courses, 149
Individual Studies major, 104-105
Latin American Studies major, 105
Russian Area Studies major, 105
Women's Studies minor, 105
Interest organizations, 32
Intermediate grade teaching, 70
Interfraternity Council, 33
International Affairs Major and/or minor, 96
International Student Program, 10
Interpretive Communication
Major and/or minor, 68
Iowa Lakeside Laboratory, 8-9
Iowa Professional Certificate, 52, 113
Iowa State Department of Public Instruction, 52, 101, 113
Iowa Teachers Consenvation Camp, 9

## J

Jazz Studies
Major and/or minor, 92
Joint Programs, 42
Journalism,
Courses, 183-184
Major(s) and/or minor(s), 74
Junior High School Education
(see: Middle School/Junior High Education major)

## K

KCRS (Campus radio station), 7, 33
Broadcasting courses, 170-174
KHKE/KUNI (FM radio station), 7, 36

## L

Laboratory, Curriculum, 37
Laboratory School, Malcolm Price, 6, 39, 101
Lakeside Laboratory, Iowa, 8-9
Courses, 199
Languages (see: Modern Languages)
Language Arts, subject field, 74
Late enrollment and registration, Fee, 23
Latin American Studies
Major and/or minor, 105
Learning and Instruction, Office of, 29-30
Staff, 213
Level of courses, 109, 143
Liberal Arts curricula, 44
Liberal Arts programs (see departmental listings)

Liberal Studies, Bachelor of, 48-49
Library, The University, 35
Staff, 210, 212
Library Science, 6
Courses, 163-164
Major(s) and/or minor(s), 84, 119
Staff, 84
Teaching endorsement, 84
Linguistics,
Courses, 182
Major(s) and/or minor(s), 73, 118
Living accommodations, 29
Load, academic, 55, 109, 137, 140
Loan funds, 24, 110
Lower Elementary teaching, 69, 100, 126

## M

Majors
Graduate, 107, 114-132, 133-136, 138
Second or double, 52, 114
Undergraduate programs, 55, 63-105
Making up of work, 56
Malcolm Price Laboratory School, 6, 39, 101
Management, 8
Courses, 147-148
Major(s) and/or minor(s), 84-85, 130
Staff, 84
Map of campus, 249
Marketing, 8
Courses, 146
Major(s) and/or minor(s), 85, 130
Staff, 85
Marks and Grade Points, 56-57
Married Student Housing (see: University Apartments)
Master's Degrees Common Regulations and Requirements, 132
Master's degree programs
Master of Arts, 114-124
Master of Arts in Education, 125-129
Master of Business Administration, 129-130
Master of Music, 130-132
Mathematics and Computer Science, 8 Courses, 189-192
Major(s) and/or minor(s), 86-87, 119-120
Staff, 86
Subject field, 87
Maucker Union, 35, 213
Measurement and Research, Courses in, 154-155
Media
Major and/or minor, 71
Media Laboratory, Educational, 38
Medical Service, 30
Medical Technology, Cooperative Program in, 42-43
Medicine, 42
Merchant Scholarship, 26
Microfilm agreement, 138
Middle School/Junior High School Education
Courses, 151-152
Majors, 70, 126
Subject fields, 70-71
Military Science
Courses, 145
Program, 88

Staff, 88, 210
Minority group education (see: Educational Opportunity Program)
Minors, 44, 45
Modern Languages, 6
Courses
Chinese, 185
French, 185-186
German, 186-187
Languages, 184
Portuguese, 189
Russian, 187-188
Spanish, 188-189
English/Modern Language programs, 75, 123-124
Major(s) and/or minor(s),
European Studies, 88
French, 89, 118
German, 89, 118
Russian, 89
Spanish, 90, 122
Translation and Interpretation, 124
Two Languages, 124
Staff, 88, 212
Subject field, 90
Motion Picture Production, 38
Museum, University, 35
Music, School of, 6
Activities, 31, 175
Applied credit, 175-176
Courses, 175-178
Major(s) and/or minor(s), 90-93, 120, 130-131
Participation credit, 91, 175
Special fees, 23
Staff, 90, 212
Music, Master of, degree, 130-131
Music organizations, 31, 175

## N

National Association of Schools of Music, 6
National Council for the Accreditation of Teacher Education (NCATE), 5, 15
National Direct Student Loan, 24
National Student Exchange, 10
National University Extension Association, 6
Natural History Interpretation
Major and/or minor, 65
Natural Sciences, College of, Dean of the College, 210 Departments, 8
Non-degree status, 107-108
Non-degree student, 107-108
Nondiscrimination Policy, 61
Non-resident Classification, 17-19
Non-thesis plan, 111-112, 134
North American Review, 5
North Central Association of Colleges and Secondary Schools (NCA), 5
Notice of intent to register, 21
Numbering of areas, departments, and courses, 143
Guide to Course Numbers, 143-145
Nurses, General Studies major for Registered Nurses, 41
Nursing, Allen Memorial School of, 43
Nursing, University of lowa, 42

## 0

Objectives, University, 5
Office Information Systems
Major and/or minor, 84
Office hours and holidays, 21
Officers of Administration, 209
Open credit system, 58
Orchestra credit, 175
Organizations, Student, 31-33
Orientation and Counseling, student, 29, 30
Orientation, New Student, 29
Outline for Organization and Requirements for
Master's Degrees, 132
Overloads (see: Credit, Maximum)

## P

Panhellenic, 33
Parent's Association Scholarship Program, UNI, 26
Pass/No credit (see: Credit/No Credit)
Pell Grants, 24
Philosophy and Religion, 6
Courses, 182-183
Major(s) and/or minor(s), 93
Staff, 93
Physical Education (see: School of Health, Physical Education, and Recreation)
Physical examinations, 16, 109
Physical Therapy, 42
Physics, 8
Courses, 198-199
Major(s) and/or minor(s), 93-95, 121
Staff, 93
Placement Services, 30, 52
Staff, 212-213
Plagiarism, 60-61
Policies
Academic Warning, Probation, and Suspension, 57
Admission,
Graduate students, 15, 107, 136-137, 139
Residents and non-residents, classification of, 17-19
Transfer students, 13-14, 16-17
Undergraduate students, 13-15
Advanced Placement Program, 60
Attendance, 56, 113, 134, 138, 141
Auditing Classes, 59
Change of Registration, 23, 55
College Level Examination Program (CLEP), 59
Conduct, Student, 61
Cooperative Education, 58, 143
Correspondence Study/Extension Credit, 11, 58, 112
Credit by Examination, 58
Credit/No Credit Grading, 57-58
Dean's List, 57
Duplication, 56
Enrollment, 21, 55
Exceptions to Academic Policy, Student Requests for, 55, 60
Extension Credit (and Correspondence Study), 11, 58, 112
Failed Courses, 57
Fee Payment and Billing, 24
Financial Aids and Student Employment, 24-27
Satisfactory Progress Scale, 24-25
General Education Program, 49-50
General Regulations, 55-61
Grade Index, 49, 51, 56-57, 109, 134, 137, 140

Graduate Credit for Undergraduate Students, 60
Graduation
With Honors, 57
Requirements for (undergraduate), 51-52
Grievances, Academic (student), 61
Independent Study, 10, 11, 59, 143
Making Up of Work, 56
Marks and Grade Points, 56-57
Nondiscrimination Policy, 61
Open Credit System, 58
Overloads, 55, 109, 137, 140
Persistence, Student, 61
Records, Student, 61
Registration, 21, 55, 56, 57, 60
Regression, 56
Student Load, 55, 109, 137, 140
Student Requests for Exceptions to Academic Policy, 55, 60
Visiting (Auditing) Classes, 59
Workshops and Study Tours, 60
Writing Competency Examination, 59
(see also: Graduate Program)
Political Science, 8
Courses, 200-202
Major(s) and/or minor(s), 95-96, 121
Staff, 95
Portuguese (see: Modern Languages)
Portuguese Summer Institute, 10
Post-Baccalaureate, Non-Graduate Study, 108
Practicum, 143
Preparation for Admission (high school course work), 15
Pre-professional curricula or programs, 42
President of the University, 209, 220
Presidential Scholars, 26
Pre-Theological Emphasis, 93
Price Laboratory School, 6, 39, 101-102
Principalship, Elementary or Secondary School
Majors, 128, 135
Probation,
Graduate students, 109
Transfer students, 13, 14
Undergraduate students, 57
Professional Certificate, 52, 113
Professional cores (graduate), 111-112
Professional semester, 68, 69
Professional Sequence, Common (undergraduate), 45
Program Certificates, 50-51
Programs
Graduate
Doctor of Education, 136-138
Doctor of Industrial Technology, 138-141
Master of Arts, 114-124
Master of Arts in Education, 125-129
Master of Business Administration, 129-130
Master of Music, 130-131
Second Master's, 114
Specialist, 133
Specialist in Education, 133-136
Undergraduate
Bachelor of Arts (Joint, Liberal Arts, Other,
Pre-professional Cooperative), 41-44
Bachelor of Arts - Teaching, 44-45
Bachelor of Fine Arts, 46
Bachelor of Liberal Studies, 48
Bachelor of Music, 47
Bachelor of Science, 47
Bachelor of Technology, 47-48

General Education, 49-50
Individual Studies, 10
Program Certificates, 50-51
Provisional admission (graduate), 107
Provisional degree student, 107, 137, 139
Provisional status, 107, 137, 139
Provost, Vice President and, 209-210, 220
Psychiatric referral, 30
Psychology, 8
Courses, 164-165
Major(s) and/or minor(s), 96-97, 118
Staff, 96
Psychology, Educational, 73
Courses, 149-151
Majors, 128, 136
Staff, 73
Public Administration
Major and/or minor, 95-96
Public Relations, Office of, 36
Staff, 210
Public Relations
Major and/or minor, 67
Publication
Doctor of Industrial Technology Degree, 140
Publications (see: Public Relations, Office of)

## Q

Quad-Cities Graduate Study Center, 107

## R

Radio and Television Education and Service, 51, 112
Radio-Television
Major(s) and/or minor(s), 67
Radio-Television Class Credit, 51, 112
Rates, Room and Board, 23
Reading
Courses, 153
Major(s) and/or minor(s), 69, 71, 126-127, 134, 136
Reading Clinic, 39
Reading, Speaking, and Writing competency requirements, 51, 59
Readings, 143
Readmission, 57
Recency of credit, 112
Records, Student, 61
Recreation (see: Health, Physical Education and Recreation, School of)
Recreation, Campus, 31
Refunds, 55-56
Regents, State Board of, 5, 209
Regents Universities Student Exchange Program, 10
Registration (see: Enrollment and Registration)
Registration certificate, 23, 56
Registration Procedure
Change of, 23, 55
New students, 21
Former students, 21
Graduate students, 21, 109
Notice of intent to register, 21
Regression, 56
Rehabilitation testing, wocational, 30
Reinstatement of certificates, 52
Reinstatement of enrollment (fee), 23
Religion (see: Philosophy and Religion)
Religious activities, 33

Renewal of certificates, 52
Repeating work, 57
Requirements for Graduation
Bachelor's degree programs, 51-52
Doctoral degree programs, 138, 141
Master's degree programs, 111-112
Specialist's degree programs, 134
Research
Graduate credit on
Doctoral degree programs, 138, 141
Master's degree programs, 112
Specialist's degree programs, 134
Undergraduate credit in many departments, 143
Research Continued, 56
Residence credit
Graduate programs, 112, 134, 137, 140
Undergraduate programs, 17-19
Residence Halls,
Application for rooms, 29
Advance deposits for rooms, 29
Contracts, 23, 29, 55-56
Deposit refunds, 29
Directors, 213
Mens, 29
Occupancy of rooms, 29
Rates and payments, 23
Resident assistant, 29
Women's, 29
Residence for married students, 29
Resident-Nonresident Classification, 17-19
Resident Assistant, 29
Review Committee, 19
Room and Board
Options for, 23
Refunds, 29, 55-56
ROTC, 43
Russian (see: Modern Languages)
Russian Area Studies
Major and/or minor, 105

## S

Safety Education
Courses, 157-158
Major and minor, 71
Saturday, evening, and short-term classes, 11, 112
Scholarship requirements on
Graduate
Doctoral degree programs, 137, 139, 140
Master's degree programs, 108, 109, 110, 112
Specialist's degree programs, 134
Undergraduate, 45, 49, 51, 52, 56-57
Scholarships and awards, 25-27, 110, 113
School Business Management,
Major(s) and/or minor(s), 128, 135
School of Business
Dean of the School, 210
Departments, 8
Scholarships and grants, 26
School Counseling (see: Educational Administration and Counseling)
School Psychology (see: Educational Psychology and Foundations)
Science and Science Education,
Courses, 193
Major(s) and/or minor(s), 97-98, 121-122, 133
Subject field, 70, 98
Specialist's degree program, 133

Science Symposium Award, 26
Second Baccalaureate degree, 52
Second Master's degree 114
Secondary School Teaching
Majors and minors, 45
Secondary teacher's curricula, 41, 44-45
Secretarial (see: Information Management)
Semesters, organized by, 21
Professional, 68, 69
Seminar, 143
Senate, Student, 32
Sequence, Common Professional (undergraduate), 45
Services, Educational (and Facilities)
Academic Computing Services, 37
Advanced Placement Program, 60
Art, Gallery of, 35
Broadcasting Services, 36
Center for Urban Education (UNI-CUE), 38
College-Level Examination Program (CLEP), 59
Commons, 35
Conferences and Workshops, 11
Continuing Education and Special Programs, 11
Curriculum Laboratory, 37
Educational Clinic, 38
Educational Media Center, 38
Educational Opportunity Programs, 38-39
Ethnic Minorities Cultural and Educational Center (Culture House), 39
Exhibits, 35
Foreign Student Program, 31
General Studies Program, 11, 41, 104
Individual Studies Program, 10-11, 104, 143
Iowa Lakeside Laboratory, 8-9
Iowa Teachers Conservation Camp, 9
Library, University, 35
Malcolm Price Laboratory School, 39
Maucker Union, 35
Museum, University, 35
National Student Exchange, 10
Public Relations, Office, of, 36
Reading Clinic, 39
Regents Universities Exchange Program, 10
Saturday and Evening Classes, 11, 112
Speech and Hearing Clinic, 39
Study Abroad, 9-10
Short-term classes, 11, 112
Social and Behavioral Sciences, College of Dean of the College, 210
Departments, 8
Social Foundations, Courses in, 155
Social Life, 32
Social organizations, 31-33
Social Science,
Courses, 200
Major(s) and/or minor(s), 98, 122
Social Work, 8
Courses, 169-170
Major(s) and/or minor(s), 99
Staff, 99
Sociology and Anthropology, 8
Courses, 205-208
Major(s) and/or minor(s), 99-100, 122
Staff, 99
Sororities, honor and social, 33
Spanish (see: Modern Languages)
Speaking, Reading, and Writing competency requirements, 51, 59
Special area studies, 103-105

Index

Special Education, 6
Courses, 152-153
Major(s) and/or minor(s), 100-101, 129, 136
Staff, 100, 211
Specialist degree program, 133
Specialist in Education degree programs, 133-136
Speech (see: Communication and Theatre Arts)
Speech and Hearing Clinic, 39
Speech-Language Pathology and Audiology (see: Communicative Disorders)
State Board of Public Instruction, 52, 101, 113
State Board of Regents,
Establishment of scholarships, 25
Fees subject to change, 23
Governs, 5
Membership, 209
Public relations program, 36
Statement of Further Work, 55
Student Alumni Council (SAC), 36
Student concerts, 33
Student conduct, 61
Student costs, 23
Student Counseling Graduate programs in, 128
Student fees (see: Fees)
Student Field Experience, 6, 102
Courses, 156
Staff, 101
Student teaching, 102
Student Government, 32
Student Health Service, 30
Student Housing, 29
Accommodations for family housing, 29
Student Load, 55, 109, 137, 140
Student loan funds, 24, 110
Student newspapers, 33
Student organizations, 31-33
Student orientation, 29
Student Presistence, 61
Student Personnel Services programs, 127-128
Student Publications, 33
Student Records, 61
Student Requests for Exceptions to Academic Policy, 55, 60
Student Rights and Responsibilities, 61
Student Senate, 32
Student Services,
Academic Advising, 29
Career Services, 30
Cooperative Education, 58
Counseling Services. 30
Learning and Instruction, Office of, 29
Orientation, 29
Placement Services, 30
Speech and Hearing Clinic, 39
Student Health Service, 30
Student Spouse Activity Program, 33
Student Services, Division of Educational and, 212-214
Vice President for, 209
Student Spouse Activity Program, 33
Student Teaching
Aim, 102
Application, 52, 102
Approval, 45
Areas, 44-45
Certification requirements, 52
Credit, 52

Directed Experience, 45
Double majors, 52
Limitations in the amount, 52, 102
Prerequisites, 45, 102
Scholarship requirement, 45
Summer session, 21
Time-spent (block of time), 45
Transfer credit, 16-17
Study Abroad, 9-10
Study Tours, 9-10
Subject fields (Guide to Course Numbers), 143
Summer sessions, 21
Superintendent
Major(s), 135
Supplies and books, approximate cost of, 23
Suspension, readmission, and probation, 57

## T

Table of Contents, 2
Teachers Conservation Camp, Iowa, 9
Teacher Education and Certification, Division of, 52
Teacher Education Coordinating Council, 45
Teaching, 6
Malcolm Price Laboratory School, 6, 39
Staff, 101
Teaching Certificate and Endorsements, 52
Teaching assistantships, 110
Teaching Certificates, 52, 113
Teaching English to Speakers of Other Languages (TESOL)
Major(s) and/or minor(s), 74, 123
Teaching Major (graduate program), 128
Teaching Program
Additional requirements, 52
Approval, 45
Directed Experience, 45, 102
Student teaching, 45, 52, 102
Technology, Industrial
Courses, 160-163
Major(s) and/or minor(s), 82-83, 123, 138-141
Staff, 82
Television Services (see: Radio and Television)
TESOL (Teaching English to Speakers of Other Languages)
Major(s) and/or minor(s), 123
TESOLModern Language
Major(s) and/or minor(s), 75, 123-124
Tests (see: Examinations)
Tests and Interviews, 16
Tests and Measurements, courses in, 154-155
Test Scoring Analysis, 37
Textbooks and supplies, 23
Theatre Arts (see: Communication and Theatre Arts)
Theological (Pre-) Emphasis, 93
Therapeutic Recreation (see: Health, Physical Education and Recreation, School of)
Thesis
Abstract, 113
Binding fee, 113
Filing of, 113, 134
Selection of, 112-113
Thesis and non-thesis plans, graduation requirements for, 112-113
Tours, campus, 29
Tours, Foreign Study, 9-10
Transcript of credits
Fees, 23
Filing, 13

High school for admission, 13
Transfer students, 16-17
Transfer credit, 13-14, 16-17, 112
Transfer students,
Curricular adjustments for, 16-17
Probation, 13-14
Translation and Interpretation (Spanish/English)
Major and/or minor, 124
Tuition (see: Fees)
Two Languages
Major and/or minor, 124

## $\mathbf{U}$

Unconditional admission, graduate, 111
Undergraduate
Awards and scholarships, 25-27
Curricula, 41-52
Unfinished (incomplete) work, 56 (see also: Incomplete (unfinished) work; Research Continued)
Union, Maucker, 35, 213
Union Policy Board, 32
UNI Student Association, 32
University Apartments, 29
University Calendar, 3
University Foundation, The, 36
University, Its Programs, 5
University of Iowa Nursing Program, 42
University office holidays, 21
University Union (J.W. Maucker), 35
Staff, 213
Upper Elementary Teaching, 68-69, 100, 126
Urban Education, Center for (UNI-CUE), 38

## V

Veterans
Administration program for, 21
Excused from required activity courses, 21
Residents, Iowa, 17-19
Vice President and Provost, 209-210, 220
Vice President for Academic Affairs, Assistant, 210
Vice President for Administrative Services, 209, 214
Vice President for Educational and Student Services, 209, 212
Visiting days, 29
Visitor (visiting classes), 59
(see: Audit)
Vocal music, 91-93
Vocational rehabilitation assistance, 30
Vocational-Technical Education,
Major and/or minor, 82

## W

Waiver of regulations (graduate), 109
Withdrawal from a course (change of registration), 55
Withdrawal from the university
Procedure, 56
Refunds, 55-56
Women's Studies Minor, 105
Work (see: Employment)
Workloads, student
Undergraduate, 55
Graduate, 55, 109
Workshops, 112
Workshops and Study Tours, 60
Work-Study Program, 24
Writing Competency Examination, 59
Requirement for graduation, 51
Writing, Reading, and Speaking competency requirements, 51, 59


## Who to Contact

## Write or Call. . .

Office of Admissions 1-800-772-2037 or 319-273-2281

Continuing Education and Special Programs
1-800-772-1746 or 319-273-2121
Graduate College 319-273-2748
Office of Financial Aids and Student
Employment 1-800-772-2736 or 319-273-2700
Office of Public Relations 319-273-2761
Office of the Registrar 319-273-2241
Department of Residence 319-273-2333
University Information 319-273-2311

## For information about. . .

Admission
Campus visits
Evaluation of credits
New student orientation
Registration Transferring University literature
Correspondence courses
Extension courses
Non-credit programs
Graduate Programs
Financial aid
Student employment
Campus events
Class schedules Transcripts
Housing
Telephone numbers of department offices, faculty, staff, and students.

## Mailing address:

University of Northern Iowa
Cedar Falls, IA 50614

The Unkersity of Northern Iown does not maintain a permanent malling list for distribution of this Bulletin. Requests for copies should be addressed to the:

Office of the Regletrar University of Northern Iown Cedar Falls, Iown 50614

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.


[^0]:    *Authorization to perform a specific type of senvice at a particular grade level(s). Applicant must complete an approved program.

[^1]:    German -
    Required:

    Languages: 70:190 . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
    German: 74:011 . . . . . . . . . . . . . . . . . . . . . . . . . . 5 hours
    74:052 and 74:062 .......................... . 5 hours
    74:101; 74:123; 74:103 or 74:107; plus
    electives ................................... 11 hours
    24 hours

[^2]:    -First registration for 3 hours only

[^3]:    *Regular graduate faculty member.

[^4]:    ${ }^{*}$ Regular graduate facuity member.

[^5]:    *Regular graduate faculty member.

[^6]:    *Regular graduate faculty member.

[^7]:    *Regular graduate faculty member.

[^8]:    *Regular graduate faculty member

[^9]:    ${ }^{*}$ Regular graduate faculty member.

[^10]:    *Regular graduate faculty member.

