University of Northern Iowa Bulletin

University Catalog

1988-1990

Effective Fall Semester — 1988

UNIVERSITY OF NORTHERN IOWA BULLETIN. Issued four times a year by the University of Northern Iowa, 1222 West 27th Street, Cedar Falls, Iowa 50614, during the months of February, March, July and August. Second-class postage paid at Cedar Falls, Iowa 50613. Postal number USPS 121-380.
Vol. LXXXIX, No. 3, July 1988
# Contents

University of Northern Iowa Academic Calendar .................................. 3
General Information ................................................................. 5
   The University and Its 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 ............................................. 9
Admission Requirements .................................................................. 13
   Academic Preparation for Undergraduate Admission ................... 14
   Admission Requirements for Graduate Students ......................... 15
   Application Procedures ......................................................... 15
   Curriculum Adjustments for Transfer Students ............................ 15
   Classification of Residents and Nonresidents ............................... 16
Enrollment and Registration Procedures ........................................... 19
   Enrollment ........................................................................ 19
   Registration Procedures ........................................................ 19
Fees and Financial Aid .................................................................... 21
   Student Costs ....................................................................... 21
   Financial Aid Office ............................................................. 22
   Scholarships ...................................................................... 23
Student Life .................................................................................. 27
   Orientation ........................................................................... 27
   Housing .............................................................................. 27
   Academic Advising Services .................................................. 27
   Student Health Services ......................................................... 28
   Counseling Services ............................................................. 28
   Career Services ................................................................... 28
   Placement Services ............................................................... 28
   Foreign Student Affairs ........................................................ 28
   Student Activities and Honors ................................................ 29
University Facilities and Educational Services ................................. 33
   Facilities ............................................................................. 33
   Educational Services ............................................................. 35
Degree Requirements ....................................................................... 39
   Undergraduate Curricula .................................................... 39
   General Education Program .................................................. 47
   Program Certificates ............................................................ 49
   Requirements for Graduation .................................................. 49
   Graduate Curricula ............................................................... 51
Academic Regulations ..................................................................... 53
Program Requirements ................................................................... 61
   Departments and Undergraduate Programs ............................... 61
   Interdisciplinary Majors and Minors .......................................... 102
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 ............................... 130
   Master of Music Degree ........................................................ 130
   Master of Philosophy Degree ................................................ 131
   Specialist Degree .................................................................. 134
   Specialist in Education Degree ............................................. 134
   Doctor of Education Degree .................................................. 137
   Doctor of Industrial Technology Degree .................................... 139

Courses of Instruction ................................................................. 145
   Course Descriptions .............................................................. 146
State Board of Regents .................................................................... 214
Administrative Staff ....................................................................... 214
Emeritus Faculty .......................................................................... 222
Instructional Staff ......................................................................... 225
Index ......................................................................................... 239
University Map ............................................................................. 251
University of Northern Iowa
Academic Calendar
1988-1990

Summer Session, 1988 —
June 6 Mon., Registration, 8 a.m.-4 p.m.
June 7 Tues., Instruction begins, 7:30 a.m.
July 1 Fri., First four-week session ends
July 4 Mon., Legal holiday
July 5 Tues., Second four-week session begins
July 29 Fri., Summer sessions end
July 29 Fri., Commencement

Fall Semester, 1988 —
Aug. 22 Mon., Registration, 9 a.m.-4 p.m.
Aug. 22 Mon., Instruction begins, 4 p.m.
Sept. 5 Mon., Legal holiday (Labor Day)
Oct. 15 Sat., End first half semester, 12 noon
Oct. 17 Mon., Begin second half semester, 8 a.m.
Nov. 22 Tues., Thanksgiving vacation begins, 10 p.m.
Nov. 28 Mon., Instruction resumes, 8 a.m.
Dec. 12-16 Mon.-Fri., Final examinations
Dec. 16 Fri., Semester ends
Dec. 17 Sat., Commencement

Spring Semester, 1989 —
Jan. 13 Fri., Registration, 9 a.m.-4 p.m.
Jan. 16 Mon., Instruction begins, 8 a.m.
Mar. 4 Sat., End first half semester, 12 noon
Mar. 6 Mon., Begin second half semester, 8 a.m.
Mar. 18 Sat., Spring vacation begins
Mar. 27 Mon., Instruction resumes, 8 a.m.
May 8-12 Mon.-Fri., Final examinations
May 12 Fri., Semester ends
May 13 Sat., Commencement

Summer Session, 1989 —
June 9 Fri., Registration, 8 a.m.-4 p.m.
June 12 Mon., Instruction begins, 7:30 a.m.
July 4 Tues., Legal holiday
July 7 Fri., End first four weeks
July 10 Mon., Begin second four weeks
Aug. 4 Fri., Summer sessions end
Aug. 4 Fri., Commencement

Fall Semester, 1989 —
Aug. 28 Mon., Registration, 9 a.m.-4 p.m.
Aug. 28 Mon., Instruction begins, 4 p.m.
Sept. 4 Mon., Legal holiday (Labor Day)
Oct. 21 Sat., End first half semester, 12 noon
Oct. 23 Mon., Begin second half semester, 8 a.m.
Nov. 21 Tues., Thanksgiving vacation begins, 10 p.m.
Nov. 27 Mon., Instruction resumes, 8 a.m.
Dec. 16 Sat., Commencement
Dec. 18-22 Mon.-Fri., Final examinations
Dec. 22 Fri., Semester ends

Spring Semester, 1990 —
Jan. 12 Fri., Registration, 9 a.m.-4 p.m.
Jan. 15 Mon., Instruction begins, 8 a.m.
Mar. 3 Sat., End first half semester, 12 noon
Mar. 5 Mon., Begin second half semester, 8 a.m.
Mar. 17 Sat., Spring vacation begins
Mar. 26 Mon., Instruction resumes, 8 a.m.
May 7-11 Mon.-Fri., Final examinations
May 11 Fri., Semester ends
May 12 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 general view of the University 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, eight degrees are offered: the Master of Arts, the Master of Arts in Education, the Master of Business Administration, the Master of Music, the Master of Philosophy, the sixth-year Specialist and Specialist in Education degrees, the Doctor of Education degree, and the Doctor of Industrial Technology degree.

The University of Northern Iowa 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 600 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 University of Northern Iowa Center for Urban Education (UNI-CUE) which is located in the heart of the urban area of Waterloo, Iowa. The internationally known North American Review, which was established in 1815 in Boston and is the oldest periodical in the United States, is now published under the auspices of the University of Northern Iowa.

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 Iowa 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:

"The University of Northern Iowa 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-service 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 pre-professional programs and conducts research and extension programs to strengthen the educational, social, cultural, and economic development of Iowa 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 itself 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 veterinary 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 needs of students and society."

Memberships and Accreditation

The University of Northern Iowa 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, the American Home Economics Association, and the National Recreation and Park Association/American Association for Leisure and Recreation. Programs are also approved by the Iowa State Department of Education, 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

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 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 school/junior high education, reading and language arts, safety education, educational media and communications media, and education of the gifted. The department also operates a day care center and participates in the Interdisciplinary Educational Laboratory.

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 a number of the courses required of all prospective teachers, and participates in the Interdisciplinary Educational Laboratory in conjunction with its state certification program in school psychology. The department has two master's graduate degree programs, 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 University of Northern Iowa'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 University of Northern Iowa 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-service 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 Iowa 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 all-university 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 education core 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.F.A. (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, German, 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 (B.F.A.) 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 (M.B.A.) 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 in 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 University of Northern Iowa’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. A KUNI repeater station is currently under construction in Mason City. 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 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 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 departments: the Departments of Geography, History, Home Economics, Political Science, Psychology, Sociology and Anthropology, and Social Work. All departments share a concern for understanding individuals and societies in their social, historical, 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.

The Bachelor of Arts degree is awarded for studies in the liberal and vocational arts. Programs of study 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.

All departments in the college participate 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.

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 emphasis of the university and the College of Social and Behavioral Sciences is instruction. Every effort is made to provide high-quality, 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 also integral components of the mission of the college. The college has excellent laboratory facilities, and many members of the college faculty have achieved national recognition in their fields.

Vocational opportunities for graduates exist in a broad range of positions in education, public and social service, 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 B.A. (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 high-quality 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 January, 1988, the School has 126 microcomputers in place, most of which are for student use. Students also can access the university mainframe computer via a terminal room located in Seeley 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 form 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 following with detailed directions of enrollment. The courses regularly scheduled at the Laboratory are listed in the courses of the Department of Biology. Further information may be secured by writing to the Department of Biology, University of Northern Iowa. Registration is made through the Registrar's Office, University of Northern Iowa, Cedar Falls, Iowa 50614.

**Iowa Teachers Conservation Camp:** A field laboratory program in Iowa conservation problems and environmental education is offered at various locations in Iowa each summer. Two three-week courses, each carrying three credit hours, are offered: 84:104G Iowa Conservation Problems and 82:230 Environmental Education Program Development. 84:104G is a prerequisite to 82:230.

The program is jointly sponsored by the Iowa Department of Education, 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.

**International Studies:** University of Northern Iowa is committed to giving every student, regardless of program of study, a meaningful opportunity to study and experience peoples and cultures other than his or her own. An Office of International Studies has been established to coordinate and support a wide variety of programs which serve that end. Required courses in the humanities and foreign cultures in the general education program assure that international study is an integral part of education at University of Northern Iowa. The foreign language requirements for all University of Northern Iowa graduates assures the acquisition of the basic language skills and cross-cultural sensitivity needed in virtually all spheres of activity in an interdependent world. Language programs include French, German, Russian, Spanish, Portuguese, and Chinese. Interdisciplinary area studies programs quartered in the College of Humanities and Fine Arts and the College of Social and Behavioral Sciences cover major world regions. Majors are offered in Asian Studies, European Studies, Latin American Studies and Russian/Soviet Studies.

University of Northern Iowa's overseas activities are anchored by cooperation and exchange agreements with foreign universities and education agencies. These arrangements support semester study abroad opportunities in both language and liberal arts subjects in London and Klagenfurt, Austria. By 1990 further semester or academic-year study abroad opportunities will be developed in Japan, Spain, China, and Latin America. Long established summer language programs are conducted in Spain, France and Austria. Semester and winter interm Spanish study is available at Colima, Mexico. In addition, study tours are frequently arranged. Recently they have taken University of Northern Iowa students to Western Europe, the Soviet Union, Latin America and East Asia.

**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 Tarapaca in Araca, Chile. The foreign language programs are conducted in France, Germany, Austria, Spain, and Latin America.

The **Intensive German Semester Abroad** program provides intensive training in German, offering intermediate and advanced language study leading to a minor in German.

Prerequisites for admission are Elementary German (one or two semesters at the college level, or two years in high school) with a grade of B or better, or a basic knowledge of German.

Students are housed in a modern dormitory; instruction is given by faculty from the University of Northern Iowa, as well as by faculty from Klagenfurt University in Klagenfurt, Austria. The duration of the program is approximately 19 weeks from the middle of February to the middle of June.

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 France** (for teachers of French) is a seven-week 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 Universite 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 eight-week 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 contacts 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 Iowa 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. The minimum 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 universities 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 program sponsored jointly by the three Iowa Regents' Universities in cooperation with the Universities of Extremadura and Valladolid, and the Colegio Universitario Integrado de Burgos, a branch of the University of Valladolid. Designed for undergraduates and those beginning their graduate studies, the program offers up to nine semester hours of credit. Included are a ten-day orientation period in Caceres, at the
University of Extremadura, a tour of other parts of Spain, a week of independent travel and study in Burgos at the Colegio Universitario, with excursions into the province of Burgos and neighboring areas. Students live with Spanish families while in Burgos and Caceres.

The University of Northern Iowa 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 University of Northern Iowa Study Program 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 University of Northern Iowa, 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. An individualized undergraduate semester-long program is available upon request.

The Coordinated Independent Studies Program in Santiago de Compostela, 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 the University of Northern Iowa. The program requires the University of Northern Iowa 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 the University of Northern Iowa 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 120.

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 University of Northern Iowa 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. 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, University of Northern Iowa.

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 University of Northern Iowa. Students may exchange to one of 70 colleges and universities such as: California State University (Fresno), University of New Mexico, University of Idaho, University of Georgia, University of Minnesota 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 the University of Northern Iowa. 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 administrator 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 46)
Individual Studies major (see pages 103-104)
General Studies major (see page 103)
General Studies for Nurses (see pages 39-40)
Exploratory Seminars
Interdisciplinary Readings
Undergraduate Thesis
Individual Study Project

Courses taken through the Individual Studies Program at the University of Northern Iowa are 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 self-expression 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
For information on off-campus credit courses, or establishment of such courses, call or write the Office of Continuing Education and Special Programs, University of Northern Iowa, Cedar Falls, Iowa 50614.

**Correspondence Courses** — For those who find it inconvenient to attend classes on campus, opportunities to learn are available through guided correspondence study. One may earn college credit toward a degree, work for teaching certificate renewal credit, or study in an area of personal interest. Correspondence courses do not follow the regular semester schedule; one may enroll at any time and can take up to twelve months to complete the course. A brochure giving the complete details of the program is available in the Office of Continuing Education and Special Programs.

**Off-Campus Courses** — Each semester and during the summer University of Northern Iowa offers a wide variety of credit courses in different communities throughout Iowa. A majority of these courses are offered for graduate credit and are offered for teachers who are seeking advanced degrees, recertification hours, continuing education hours needed to enhance their professional credentials, certifying hours in a new teaching area, or advancement on their district's pay scale. Courses are also offered to businesses and industries that have specific requests to answer a need that their employees may have. Those interested in off-campus courses should contact the Office of Continuing Education and Special Programs.

**Telecourses** — Like correspondence courses and off-campus courses, telecourses provide a learning opportunity for those for whom distance or time restraints make class attendance on campus difficult. These courses feature television broadcasts on Iowa Public Television as well as written, telephone, and, in some cases, personal contact with a University of Northern Iowa instructor. For more information about telecourses, contact the Office of Continuing Education and Special Programs.

**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.

In addition, the Office of Conferences and Visitor Services is the contact for all outside groups wishing to use university facilities for programs or events. This office is also active in the development of new university sponsored conferences, workshops and seminars.
Admission Requirements

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 $20 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. 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 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 before completing high school. Early admission is provided to serve persons whose academic achievement and personal and intellectual maturity clearly suggest readiness for collegiate-level study. The university will specify requirements and conditions for early admission.

   Applicants must submit a formal application for admission, together with a $20 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 students are defined as those with at least twenty-four (24) semester hours of graded credit acceptable for transfer to the University of Northern Iowa. Transfer students must have or exceed the following combination of grade point and total semester hours for admission to University of Northern Iowa.

   - 24-41 hours: 2.50 GPA
   - 42-59 hours: 2.25 GPA
   - 60 or more hours: 2.00 GPA

   Transfer applicants who have not maintained the level of academic performance given above 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 twenty-four 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 will 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 for 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 Post-Secondary 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 existing educational policies.

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 this university to be of a remedial, vocational, or technical nature, or credit in courses or pro-
Admission Requirements

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 this 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 without condition.

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. The 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 this 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.

Academic Preparation for Undergraduate Admission

I. Applicants who graduated from high school between January 1984 and December 1987 will be held to the following high school course requirements in order to enroll without subject matter restrictions.

A. A minimum of three (3) years of English of which at least one year is identified as composition.

B. A minimum of three (3) years of mathematics of which at least one year must be algebra.

Students permitted to enroll with deficiencies regarding University of Northern Iowa's high school core requirements in English and/or mathematics will be required to complete non-credit developmental course(s) in the appropriate subject(s) and may be restricted to a reduced academic load during the freshman year.

Students transferring to the University of Northern 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.

Some students who do not have the required high school background in English or mathematics may be released from non-credit courses after entering the University of Northern Iowa on the basis of ACT scores and/or the College Level Examination Program (CLEP) scores. A score of 25 or better on the ACT English sub-test or a percentile score of 70 or better on the CLEP English Composition-Write Essay general examination would release the student from the non-credit English requirement. A score of 26 or better on the ACT Mathematics sub-test, or a percentile of 50 or better on the CLEP College Algebra-Trigonometry subject examination would permit the student exemption from the mathematics non-credit requirement.

II. Effective for those applicants graduating from high school spring term 1988, and after, the following high school subject matter requirements will apply.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Requirement</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4 years</td>
<td>Must have a minimum of 4 years of English that may include 1 year of speech, communications and/or journalism.</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3 years</td>
<td>Must have a minimum of 1 year of composition.</td>
</tr>
<tr>
<td>Social Studies</td>
<td>3 years</td>
<td>Anthropology, economics, geography, government, history, psychology and/or sociology are acceptable.</td>
</tr>
<tr>
<td>Science</td>
<td>2 years</td>
<td>General science, biology, chemistry, earth science and/or physics are acceptable. Laboratory experience is highly recommended.</td>
</tr>
<tr>
<td>Electives</td>
<td>2 years</td>
<td>Additional courses from subject areas identified above are acceptable. May include foreign language and/or fine arts.</td>
</tr>
</tbody>
</table>

III. Students graduating from high school before January 1984, will be considered exempt from high school core curriculum requirements. Their academic preparation will be compared with high school course recommendations in effect prior to 1984.
Admission Requirements for Graduate Students

Admission 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 evidence 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 it as indicated in 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 pages 107-108.

B. Application Fee. A fee of $20 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 $20 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 six- or seven-semester transcript if you are still in high school and a final report on graduation. If you are OUT of school, ask your principal to send a complete transcript. If you have attended more than one high school, a single report is sufficient if it includes all your work; otherwise, a report will be needed from each high school attended.

E. Transcripts of College or University Records. If you have attended another college or university, an official transcript of record MUST BE SENT DIRECTLY 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 24 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 the University of Northern Iowa 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 28 for services available through the University of Northern Iowa Health Center.)

H. Housing. A housing card is included with the notice of admission. The completed card should be returned immediately by all students who wish to live on 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 University of Northern Iowa recommendation, and/or miscellaneous undergraduate course work 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 pages 107-108.

Classification of residents and non-residents for admission and fee purposes for all students is listed on pages 16-17.

Curriculum Adjustments for Transfer Students

A. 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.

B. 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.
Admission Requirements

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, page 49).

C. 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 Northern Iowa equivalents when they exist. Credit earned in courses for which this university does not have an equivalent is simply reported as credit accepted. The student is also provided with another report including general university requirements still to be met.
2. All college work previously attempted is considered for acceptance, including work for which a grade of D is earned. Grades of failure remain as part of the student's record and transfer grade index.
3. If an undergraduate student repeats a course, only the last grade earned affects the cumulative average; the grade point value of the first grade is not 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.

D. 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 professional education 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 levels of the professional education requirements 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, Tuition, and Fee Purposes

I. General —
A. A person enrolling at one of the three state universities shall be classified as a resident or nonresident for admission, tuition, 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.
B. In determining resident or nonresident classification, the issue is essentially one of why the person is in the state of Iowa. If the person is in the state primarily for educational purposes, that person will be considered a nonresident. For example, it may be possible that an individual could qualify as a resident of Iowa for such purposes as voting, or holding an Iowa driver's license, etc., and not meet the residency requirements as established by the Board of Regents for admission, tuition, and fee purposes.
C. The Registrar, or designated person, is authorized to require such written documents, affidavits, verifications, or other evidence deemed necessary to determine why a student is in Iowa. The burden of establishing that a student is in Iowa for other than educational purposes is upon the student.
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;
2. A statement from the student's employer;
3. A statement from the student's parents verifying non-support 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;
5. Iowa state income tax return.
D. Change of classification from nonresident to resident will not be made retroactive beyond the term in which application for resident classification is made.
E. A student who gives incorrect or misleading information to evade payment of nonresident fees shall be subject to serious disciplinary action and must also pay the nonresident fees for each term previously attended.
F. 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 Review Committee may be appealed to the State Board of Regents.

II. Guidelines
   The following guidelines are used in determining the resident classification of a student for admission, tuition, and fee purposes.
A. 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.

B. In deciding why a person is in the state of Iowa, the person's domicile will be considered. 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 a domicile in Iowa.

C. A student who was a former resident of Iowa 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 reestablished. If the absence from the state is for a period exceeding twelve months, a student may be considered a resident if evidence can be presented showing that the student has long-term ties to Iowa and reestablishes an Iowa domicile.

A person or the dependent of a person whose domicile is permanently established in Iowa, who has been classified as a resident for admission, tuition, and fee purposes, may continue to be classified as a resident so long as such domicile is maintained, even though circumstances may require extended absence of the person from the state. It is required that a person who claims Iowa domicile while living in another state or country will provide proof of the continual Iowa domicile such as evidence that the person: (1) has not acquired a domicile in another state, (2) has maintained a continuous voting record in Iowa, and (3) has filed regular Iowa resident income tax returns during absence from the state.

D. 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 as more than a half-time student (six credits for an undergraduate or professional student, five credits for a graduate student) in any academic year term, is not enrolled for more than four credits in a summer term for any classification, and provides sufficient evidence of the establishment of an Iowa domicile.

E. A student who has been a continuous student 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 a majority of financial assistance.

F. 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 student is first enrolled, nonresident fees will be charged in all cases until the beginning of the next term in which the student is enrolled. 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 returns.

G. A person who has been certified as a refugee or granted asylum 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 admission, tuition, and fee purposes where the person:

1. Comes directly to the state of Iowa from a refugee facility or port of debarkation, or
2. Comes to the state of Iowa within a reasonable time and has not established domicile in another state. Any refugee or individual granted asylum not meeting these standards will be presumed to be a nonresident for admission, tuition, and fee purposes and thus subject to the usual method of proof of establishment of Iowa residency.

H. An alien who has immigrant status establishes Iowa residency in the same manner as a United States citizen.

III. Facts

A. The following circumstances, although not necessarily conclusive, have probative value in support of a claim for resident classification:

1. Reside in Iowa for twelve consecutive months, and be primarily engaged 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 resources 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. Acceptance of an offer of permanent employment in Iowa.
6. Other factors indicating the student's domicile will be considered by the universities in classifying the student.

B. The following circumstances, standing alone, do not constitute sufficient evidence of domicile to effect 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. Admission to a licensed practicing profession in Iowa.
5. Automobile registration.
6. Public records, for example, birth and marriage records, Iowa driver's license.
7. Continuous presence in Iowa during periods when not enrolled in school.
8. Ownership of property in Iowa, or the payment of Iowa taxes.
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 1988 and 1989 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 Office Hours — The university’s principal administrative offices are open from 8 a.m. — noon and 1-5 p.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:

<table>
<thead>
<tr>
<th>1988</th>
<th>1989</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Year’s Day</td>
<td>Fri., Jan. 1</td>
</tr>
<tr>
<td>Memorial Day</td>
<td>Mon., May 30</td>
</tr>
<tr>
<td>Independence Day</td>
<td>Mon., July 4</td>
</tr>
<tr>
<td>Labor Day</td>
<td>Mon., Sept. 5</td>
</tr>
<tr>
<td>Thanksgiving</td>
<td>Thur., Nov. 24 - Fri., Nov. 25</td>
</tr>
<tr>
<td>(New Year’s Day)</td>
<td>Fri., Dec. 30</td>
</tr>
<tr>
<td>1989</td>
<td>1990</td>
</tr>
</tbody>
</table>

The university’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 costs for undergraduate students who are residents of Iowa is approximately $5,750 for the academic year.

<table>
<thead>
<tr>
<th></th>
<th>Tuition</th>
<th>Board and Room</th>
<th>Books, supplies and incidentals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$1,690</td>
<td>$2,150</td>
<td>$1,910</td>
</tr>
</tbody>
</table>

Non-resident students are charged an additional $2,656 tuition.

Students are required to provide their own books. Ordinarily the cost for these books will be $200 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 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 exchange at the beginning of each semester.

<table>
<thead>
<tr>
<th></th>
<th>Resident Differential Fee</th>
<th>Non-Resident Differential Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$210</td>
<td>$284</td>
</tr>
<tr>
<td></td>
<td>$210</td>
<td>$284</td>
</tr>
<tr>
<td></td>
<td>$210</td>
<td>$284</td>
</tr>
<tr>
<td></td>
<td>$210</td>
<td>$284</td>
</tr>
<tr>
<td></td>
<td>$210</td>
<td>$284</td>
</tr>
<tr>
<td></td>
<td>$210</td>
<td>$284</td>
</tr>
<tr>
<td></td>
<td>$210</td>
<td>$284</td>
</tr>
<tr>
<td></td>
<td>$210</td>
<td>$284</td>
</tr>
<tr>
<td></td>
<td>$210</td>
<td>$284</td>
</tr>
<tr>
<td></td>
<td>$210</td>
<td>$284</td>
</tr>
</tbody>
</table>

II. Residence Hall Fees

| Residence Hall Activity Fee | $71.00 |
|                            | $71.00 |

Double Occupancy, all residence halls:

<table>
<thead>
<tr>
<th></th>
<th>Semester</th>
<th>Academic Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full board and room</td>
<td>$1,075</td>
<td>$2,150</td>
</tr>
<tr>
<td>No board plan (Bartlett only)</td>
<td>484</td>
<td>968</td>
</tr>
</tbody>
</table>

Residence Hall Activity Fee

Single occupancy, all residence halls: add $450* to above rates.

No breakfast meal board option: deduct $50* from above rates.

No weekend meals board option: deduct $60* from above rates.

No breakfasts and no weekend meals board option: deduct $100* from above rates.

*Each semester.

Residence hall fees for the summer sessions are approximately as follows: four weeks — $121; eight weeks — $242. (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

<table>
<thead>
<tr>
<th></th>
<th>$20.00</th>
</tr>
</thead>
</table>

A. Application for Admission to the University

B. Applied Music (in addition to tuition)

1. Private lessons (½ 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 — after 7 class days) $5.00

D. Correspondence (per semester hour) $51.00

E. Credit by Examination, University Courses (per course) $71.00

F. Deferred Tuition Payment (per semester) $5.00

G. Diploma Replacement $5.00

H. Doctoral Post Comprehensive Registration Fee (assessed if not otherwise registered) $70.00

I. Extension or Television Class (per semester hour) $71.00

J. Lakeside Laboratory (per five weeks) $337.00

K. Late Registration Fee $10.00

L. Open Credit (per project) $142.00

M. Remedial Courses (minimum fee) $142.00

N. Restricted Enrollment Fee $10.00

O. Replacement of ID Card $6.00

P. Replacement of Registration Certificate $3.00

Q. Returned Check Charge $5.00

R. Transcript of Academic Record

1. One transcript $3.00
2. Multiple copies, same order — $3 plus $1 for each additional copy.

S. Writing Competency Examination (for students not registered) $71.00

All fees and all policies 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, university apartment 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 are reminded that they will be placed under “Restricted Enrollment” status if payments are not made to the University Controller’s Office by the date specified on the billing. A $10 restricted enrollment fee will be assessed for each billing which remains past-due. Students placed on Restricted Enrollment status will not be permitted to preregister or to receive academic records until this status has been lifted.

See pp. 53-54 for information on withdrawal refunds and fee reduction.

Financial Aid Office

The University of Northern Iowa, through the Financial Aid 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 Aid Office is located in Gilchrist Hall. Financial aid counseling is available to students throughout the year. A catalog of scholarships and financial aid 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 $2,100. How much students receive will depend on their Student Aid Index, need, whether they are full-time students, and the cost of education.

Perkins Loans (formerly 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 $100 to $2,000 per academic year.

College Work Study — This is a program for 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 pay rate is $3.50 per hour.

Guaranteed Student Loan — Freshman/sophomore students may borrow up to $2,625 for an academic year. Junior/senior students may borrow up to $4,000. The total amount an undergraduate may have outstanding cannot exceed $17,250. Graduate students may borrow up to $7,500 for an academic year. The total amount any one student may borrow for a combined undergraduate and graduate program may not exceed $54,750 in outstanding monies. The interest rate is 8 percent and repayment begins six months after a student ceases to be at least a half-time student.

Parent Loan for Undergraduate Student (PLUS) and Supplemental Loan for Students (SLS) — A parent of a dependent student or an independent student may borrow up to $4,000 for an academic year. The interest is variable but will not exceed 12 percent. Repayment begins within 60 days following the disbursement of the check unless the borrower is enrolled at a full-time status in which case the principle payment is deferred and the interest payment either paid or capitalized.
### Satisfactory Progress

**Duration of Eligibility and Minimum Credit Hours Completion Scale**

<table>
<thead>
<tr>
<th>Academic School</th>
<th>Year Completed</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Credit Hours</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td></td>
<td>20</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>120</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pell Grant Only Recipients* (half time only)</td>
<td></td>
<td>12</td>
<td>24</td>
<td>36</td>
<td>48</td>
<td>60</td>
<td>72</td>
<td>84</td>
<td>96</td>
<td>108</td>
<td>120</td>
</tr>
<tr>
<td>Graduate — Master's Degree</td>
<td></td>
<td>12</td>
<td>24</td>
<td>36</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate — Post-Master's Degree</td>
<td></td>
<td>12</td>
<td>24</td>
<td>36</td>
<td>48</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate — Combined Master's/Post-Master's Degree</td>
<td></td>
<td>12</td>
<td>24</td>
<td>36</td>
<td>48</td>
<td>60</td>
<td>72</td>
<td>84</td>
<td>96</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Changes in Federal regulations effective for the 1987-88 year require that the duration of the student's eligibility for a Pell Grant be limited to (1) the full time equivalent of five academic years of study if the student is enrolled in an undergraduate degree or certificate program of four years or less, or (2) the full time equivalent of six academic years if the student is enrolled in an undergraduate program that requires more than four years of study to complete.

### Scholarships

University of Northern Iowa Tuition Grants are awarded to students demonstrating financial need. The grants are credited to the student's tuition and fee charges. University of Northern Iowa Tuition Grants are authorized by the State Board of Regents and recipients must be legal residents of Iowa.

**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.

**Iowa 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.
Fees and Financial Aid

Army G.I. Bill — Undergraduates serving in the Iowa National Guard or the U.S. Army Reserves can qualify for the New G.I. Bill. The new G.I. Bill Educational Assistance Benefits provide up to $1,400 a year in direct payments, plus the student continues to earn monthly training assembly pay. Many students who qualify for the New G.I. Bill also qualify for the Student Loan Repayment Program. For additional information about the New G.I. Bill write to the Department of Military Science, University of Northern Iowa, Old Auditorium Building (Room 39), Cedar Falls, IA 50614-0142; or call (collect) the New G.I. Bill Adviser at (319) 273-6105.

Army Reserve Officers’ Training Corps (ROTC) Scholarships. Several scholarships are available for students interested in ROTC.

a. Four-Year Army ROTC Scholarships. High school seniors apply for four-year Army ROTC scholarships during the Regular Cycle, before December 1st of their senior year. Regular Cycle winners are announced that following March. High school juniors can apply during the Early Cycle, from April of their junior year to August 15th. Early Cycle winners will be notified in November of their senior year. Early Cycle applicants not selected will be placed in the Regular cycle competition.

Four-year scholarships pay all tuition and required educational fees; provide an amount for textbooks, supplies and equipment; and provide a subsistence allowance of $1,000 a year for each of the four years of the scholarship. Winning and accepting a four-year ROTC scholarship does not preclude accepting other scholarships.

b. Three-Year Army ROTC Scholarships. College freshmen apply on campus for three-year Army ROTC scholarships during the last week of January. Winners are announced the following summer.

Three-year Scholarships pay all tuition and required educational fees; provide an amount for textbooks, supplies and equipment; and provide a subsistence allowance of $1,000 a year for each of the three years of the scholarship. Winning and accepting a three-year ROTC scholarship does not preclude accepting other scholarships.

c. Two-Year Army ROTC Scholarships. College sophomores have two opportunities to win two-year scholarships. The first way is for sophomores to apply on campus during January. Winners are announced the following summer. The second way for sophomores is to attend the Army ROTC Basic Camp at Fort Knox, Kentucky, and while there, to earn a Leadership Scholarship.

Two-year scholarships pay for tuition and required educational fees; provide an amount for textbooks, supplies and equipment; and provide a subsistence allowance of $1,000 a year for each of the two years of the scholarship. Winning and accepting a two-year ROTC scholarship does not preclude accepting other scholarships.

d. Additional Information. For additional information about Army ROTC scholarships, write to the Department of Military Science, University of Northern Iowa, Old Auditorium Building (Room 39), Cedar Falls, IA 50614-0142; or call (collect) the Scholarship Adviser at (319) 273-6105.

University of Northern Iowa Athletic Grants-In-Aid 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 student, 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; e) 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) UNIAO 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 qualities of leadership, involvement and service. 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. Presidential Scholars are assigned an advisor from the Presidential Scholars Board as well as a major adviser both of whom assist the Scholar to develop a program of study to meet the needs of the individual Scholar. 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 will include an interview and the writing of a essay during a visit to the University of Northern Iowa campus in Cedar Falls.
Graduate Scholarships and Awards

Several scholarships and awards, including tuition scholarships, are available for graduate students at the University of Northern Iowa, 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.

University of Northern Iowa 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 $500.00 per scholarship. To be eligible for consideration a student must: a) be a full-time 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) nominate herself/himself by filing an application in the Office of Alumni Relations, 208 Commons, or be nominated by someone in her/his respective college. 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 Aid 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
Rolcreen Company Scholarship

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

Graduate College

Maytag Scholarship in Business
Mary Crawford Burnett Memorial
University of Northern Iowa Endowment - School of Business - Leonard Keefe Memorial
John Wasco Memorial
Robert J. Waller, Sr. Scholarship
Department of Management

College of Humanities and Fine Arts

Theta Alpha Phi Scholarship
Music Scholarship
Sigma Alpha Iota - Olive Baker Memorial Scholarship
String and Harp Scholarship
Harold B. Holst Memorial Music-Theatre Scholarship
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 Scholarship
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 Alston 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 Farness Scholarship

College of Social and Behavioral Sciences
Janice Clark Memorial Scholarship
Charles T. Leavitt Memorial Scholarship
Letitia E. Walsh Award
Social and Behavioral Science Scholarship Fund

Graduate College

Schackelford Scholarship

Intercollegiate Athletics
Intercollegiate Athletics
Arthur Dickinson Memorial
Stacy Miller Memorial Scholarship
Joseph L. Marion Memorial

College of Humanities and Fine Arts

Norther Iowa Jordan Memorial
John E. Partington Memorial
Scholarship Fund
Grossman Scholarship
Minnesingers
Humanities and Fine Arts Scholarship Fund
Radio and TV - Grossman
Emma Jackson Baby Journalism Scholarship
Emil Bock Scholarship Fund
University of Northern Iowa Suzuki Talent Education
Cedar Valley Lion's Club Annual Scholarship

Vivian Wiseman Fullmer Scholarship
J.S. Latta, Jr. - Biology
Charles Hearst Scholarship
Clifford McCallum Scholarship
Myre L. Burk - Kappa Delta Pi Science Education
Century Companies of America Actuarial Science Scholarship
Biochemistry and Honors Industry Technology

Crow's Hybrid Corn Scholarship
UNI-AOP Scholarship Fund
Ronald L. Grant Memorial Scholarship
Masako Mukai Kusomoto Scholarship
UNI-CUE Scholarship Patent Fund
Waterloo Rotary Scholarship
Pauline Elliott Memorial Scholarship
Robert Hill Memorial
Paul C. Kelso Memorial
Rasmussen Scholarship Fund
Theilma Vincent McColm Scholarship
Pi Tau Phi - Lintner Scholarship

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

Graduate College Fund

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

25
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

Official admission to the University of Northern Iowa is a prerequisite to application for housing in the residence halls. A housing information card is sent to new students with their notification of admission materials. Completion of this card is necessary for those who desire housing on campus. A residence hall and dining contract serves as the official application for housing in the residence halls. The Department of Residence will process the application when both the completed contract and a $30 deposit are returned to the department. Room assignments are made on a date-of-deposit priority basis. If an applicant finds it necessary to cancel the contract before occupying the room, the deposit is refunded.

Occupancy

The residence halls open for new and returning students on the first day of orientation and registration prior to the beginning of classes for that term. If a reserved room is not occupied on the first day of classes and arrangements have not been made with the Department of Residence for later occupancy, the reservation will be canceled.

The residence hall and dining contract covers an entire academic year or the balance thereof; separate contracting is necessary for the summer session. If the contract is terminated before the expiration date, appropriate provisions of the contract will apply. The student is responsible for any financial liabilities incurred prior to the date of termination.

Residence Halls

The Department of Residence is designed to provide housing to approximately 50 students in nine residence halls. In addition to student rooms, each residence hall offers lounges, study rooms, recreational areas, laundry rooms and other facilities for the comfort and convenience of the students.

Areas within each residence hall which accommodate approximately 50 students are designated as houses. Each house elects its own officers and sponsors its own social, cultural, and recreational programs. One resident assistant (a student staff member) lives in each house to serve as a resource person for the members of that house.

Women's houses include Campbell, Hagemann, and Lawther Halls. Men are housed in Rider and Shull Halls. Coeducational housing is provided in 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 to plan their educational programs, further develop their academic skills, and use resources of the University in meeting their special educational needs. Students are provided services through three interconnecting functions, Academic Advising, Examination Services, and Reading and Learning Strategies.

Academic Advising. Students receive advising assistance in selecting majors, selecting courses, scheduling, and identifying and resolving academic difficulties. Planned group programs and individual conferences help freshmen, who have not decided upon a major, set realistic first-year goals. Information is available about University of Northern Iowa majors, options, and first-year course recommendations as well as resources relating majors and careers.

Academic Advising Services coordinate a university-wide faculty advising program. 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 Academic Advising Services, 125 Student Services Center, University of Northern Iowa, Cedar Falls, Iowa 50614.

Examination Services. Examination Services provide educational testing options to assist students in reaching their academic goals. Registration material, information and test preparation support are available through Examination Services for most major national college and professional school examinations. Test administrations are provided for the general public as well as students. Examinations are offered for both enrolled graduate and undergraduate students as well as non-students.

Reading and Learning Strategies. Academic Advising is concerned with the reading skills and learning strategies of all University of
Northern Iowa students. Students who suspect that the learning skills they have employed may be inadequate at the University or those searching for time-efficient ways to handle a heavy reading load are advised to register in this office for speed reading or effective study strategies. These are free. Six-week courses taught in small-group sessions help students double their reading rate or learn how to manage time, concentrate, take notes and prepare for exams. Students who want to focus on one of these skills specifically may meet with the Reading/Learning Strategies Specialist or a peer instructor individually.

Services of the Advising Center staff are available to all students enrolled at the University of Northern Iowa.

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 Controller’s Office in Gilchrist Hall. Services are provided by a well-qualified professional staff which includes physicians, and 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 outpatient 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, 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 University of Northern Iowa 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 University of Northern Iowa 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 services 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 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 concerning vocational trends, job qualifications, requirements for major and minor areas of study at University of Northern Iowa, 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 University of Northern Iowa. 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 the University of Northern Iowa 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 Forms I-20AB needed for visa applications to enter the United States on F-1 status. Housing arrangements are made in advance: for single students in
Bartlett 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 Advisor in academic, personal, and immigration matters.

The Office also issues Certificates of Eligibility for Exchange Visitor, J-1, status for qualified scholars, teachers, professors, researchers and students and offers ancillary services to same.

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, 120 Gilchrist Hall, University of Northern Iowa.

Student Activities and Honors

Extracurricular activities are encouraged at the University of Northern Iowa 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, Opera/Music 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 the University of Northern Iowa. 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,
Student Life

offers an extensive intramural sports program, informal recreation opportunities and sponsors a number of sports clubs during the academic year. These programs are designed to provide an enjoyable and satisfying recreational experience for both individuals and organizations. These activities are held in the UNI Dome, 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 Iowa 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 University of Northern Iowa Student Association, the Residence Halls Association, the Interfraternity Council, Panhellenic, 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 vice-president, and secretary. A UNISA Supreme Court, which comprises the judicial branch, also exists. 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 offered in the facility. 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/Students 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 GSO 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 five social fraternities, each nationally affiliated, on the campus. Persons interested in Greek life must go through 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 Interfraternity 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 University of Northern Iowa: 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 University of Northern Iowa 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 Iowa* — the student newspaper distributed twice a week during the fall and spring and once a week during the summer session; *Old Gold* — the student yearbook, published annually; and *Draftings In...*, the scholarly journal for undergraduate and graduate students.

**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 University of Northern Iowa 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 employ-
Facilities

The Library

The Donald O. Rod 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, online search services, and interlibrary loan.

As of July 1, 1987, there were 651,940 volumes in the book collections. Included in this total is the non-circulating Reference Collection of 18,021 volumes and the Youth Collection, a representative collection of elementary and secondary school library material, currently consisting of 16,365 volumes. The Library has current subscriptions to 2,928 periodicals and 69 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 217,200 documents in hard copy and 125,976 items in microfilm form. The same area includes the Map Collection of 34,924 items. The Art and Music area includes a sound recording collection of 9,576 discs and 878 cassettes and equipment for both individual and group listening. Microforms collections include 19,606 reels of microfilm, 442,928 microfiche, and 12,904 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 102 hours per week during the fall and spring semesters and 88.5 hours per week during summer session. Variations from regular schedules are posted in the main lobby of the library and are published in the Northern Iowan and the Green Sheet.

Maucker Union

The Maucker Union, located east of the University of Northern Iowa 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, student government, student radio and several other student organization offices. 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, general education funds, 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 portion of the Commons is also utilized by the Educational Media Center for academic purposes.

Gallery of Art

The Gallery of Art serves as both an educational complement to the formal programs of study at the University and a cultural resource for the community. Located in the Kamerick Art Building, the Gallery of Art includes an exhibition space of 5,300 square feet devoted to the display of art works from the University of Northern Iowa permanent art collections and the presentation of six to eight temporary exhibitions per academic year. The selections from the University of Northern Iowa permanent collections and the temporary exhibitions provide gallery visitors with a wide range of contemporary and international art interests.

In addition to the exhibition of art works, the Gallery of Art also supports a number of activities that are of interest to both the University community and the general populace. These activities include lectures, concerts, seminars, workshops, and discussions. A docent program provides student and community volunteers with opportunities to work with children and community groups in a gallery setting.

The Gallery of Art provides interested parties with ample opportunities to broaden their cultural horizons and to explore 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, Iowa, 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 Iowa operates two separately programmed public radio stations. KUNI-FM serves the Cedar Falls/Waterloo, Cedar Rapids and Iowa City areas at 90.9 FM. KUNI can be heard at 98.3 FM in Dubuque and at 94.5 FM in the Quad Cities. In addition, KUNI programming is heard in the Mason City area on KUNY at 91.5 FM. The station broadcasts high quality music and public affairs programming 24 hours each day. KHKE, at 89.5 FM (also known as “Adult Radio H-89.5”), serves the greater Black Hawk County 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 Office of Public Relations is responsible for developing and maintaining a public awareness within the University, the state of Iowa, the region and, as appropriate, the nation, that will be supportive of and contribute to the mission of the University.

The news information service interprets University programs and promotes the accomplishments of students, faculty, and staff through a variety of methods designed to reach print and broadcast media. The Radio News Network provides daily actualities to Iowa radio stations that feature expert commentary on current events by Northern Iowa faculty and staff.

The publications service supervises the development and production of more than 600 printed materials annually including brochures, catalogs, booklets and flyers.

The Office of Public Relations is also responsible for the operation of the Visitor and Information Center and University Print Services.

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

Northern Iowa Alumni Association

The Alumni Association of the University of Northern Iowa was organized in 1879 “to promote the interests of the alumni of (then) 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 become a working service organization, devoted to promoting the welfare of the University of Northern Iowa and its faculty, graduates, currently enrolled students and other friends. All constituents have the opportunity of becoming members of the Northern Iowa Alumni Association. Persons interested may join on an annual basis or pay one fee and become lifetime members.

The Nonpareil is the Association’s official publication of alumni and university news and is sent quarterly to all members of the dues-paying Alumni Association. Other benefits of membership include free use of the Donald O. Rod University Library. The Northern Iowa Today is a tabloid newspaper which is sent to all alumni, friends and parents of currently enrolled students three times each year.

Twelve Alumni Clubs have been chartered in major cities throughout the United States. These clubs were chartered, organized and developed by means of local steering committees and boards of directors, with the assistance of the Director of Alumni Relations. Each year, additional clubs will be chartered.

Alumni assist the University in many ways, including student recruitment, service on special university committees, legislative lobbying, participation in and the chairing of traditional campus celebrations and acting as external liaisons.

The Office of Alumni Relations now services the records of more than 65,000 alumni from its offices in the Commons. This office provides clerical assistance to the Charter Clubs and is a source of information to alumni regarding conferences and functions of special interest on campus including traditional alumni-related celebrations and events. The Office of Alumni Relations coordinates all Reunions, the Eminent Alumni Lecture Series, the Heritage Honours Program and Parents Weekend. The Office of Alumni Relations also assists university colleges, schools and departments in maintaining a continuing relationship with their majors following graduation.

The Northern Iowa Alumni Association serves as the catalyst for commitment to, and involvement with, the University.

Since 1976, the Office of Alumni Relations has served as the liaison for the University of Northern Iowa Parents Association (UNIPA); and since 1980 the Northern Iowa Alumni Association has sponsored SAC (Student Alumni Council). The establishment of SAC has been significant step in the history of the Northern Iowa Alumni Association. The students who participate provide meaningful and necessary services for the university, for fellow students and for alumni and friends and also for parents of those currently enrolled. 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 Northern Iowa Alumni Association is augmented by a student service organization called SAC - Student Alumni Council.

SAC members participate in a variety of social and educational functions as University of Northern Iowa and Alumni Association representatives both on and off campus. 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, “Jo Talk,” Finals Week Survival Kits, Birthday and other Special Occasions, CAKES, and The Freshman Record, plus participation in Homecoming, Reunions, Parents Weekend, Elderhostel, and Alumni Charter Club functions.

Information can be obtained by contacting the Office of Alumni Relations, 208 Commons. Telephone - (319) 273-2355.

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
m 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 Iowa. Individuals and organizations are assured of continuity of management of such funds and of their being used for the purposes which the donor intended. As a charitable organization, all gifts to the Foundation are tax deductible.

Gifts or questions should be addressed to:
University of Northern Iowa Foundation
University of Northern Iowa
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 University of Northern Iowa faculty, staff and students. In addition to the facilities themselves, ACS provides custom programming and data entry services for faculty and staff, as well as consulting and training on supported systems. Newsletters and training workshops are offered to University of Northern Iowa faculty, staff and students on a non-credit basis throughout the year.

Facilities: 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, 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 and 11 terminals within the Towers Center. Approximately 160 microcomputers are distributed at five different facilities across campus. These facilities include: 95 IBM PC (or compatible) dual floppy and hard disc computers; 35 Apple II and Apple IIGS computers; 25 Apple Macintosh computers. These computers are located in the Library, Commons, Towers Center, Education Center and Wright Hall.

These remote terminals and computers are connected to either a Harris 700, Harris 800 or Digital Micro VAX II 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 SPSS-X, MINITAB, 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 the University of Northern Iowa's membership in the Regional Computer Center (RCC) based at the University of Iowa. This link provides users with access to the IBM 4381 system at the University of Iowa and the National NAS/7 system at Iowa State University. These systems support SAS and SAGHERAPHL, OMNITAB, and BPMD 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. ACS has developed a gradebook system on the H800; also, we have adapted a commercial item pooling package to permit loading and retrieving of test items from a database. Twenty-four-hour turnaround is promised throughout the year.

Custom programming and data entry services 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 12:00 Noon - 12:00 Midnight
- Monday - Thursday 7:30 a.m. - 12:00 Midnight
- Friday 7:30 a.m. - 5:00 p.m.
- Saturday 10:00 a.m. - 4:00 p.m.

Holiday, semester break and summer session hours are different from these hours and 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 University of Northern Iowa 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, education journals, pictures, professional books, enrichment reading books, 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. Photocopy services 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 Apple microcomputer laboratory is located adjacent to the Curriculum Laboratory, and 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 10:00 p.m. Monday through Thursday, 7:45 a.m. to 5:00 p.m. on Friday, 1:00 to 5:00 p.m. on Saturday, and 1:00 to 10:00 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 Services, the Media Laboratories, Motion Picture Product-
tion 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 8mm and 16mm 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, 16mm 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, videotape 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.

**Interdisciplinary Educational Laboratory**

The Interdisciplinary Educational Laboratory was created in 1986-87 to serve the needs of various graduate curricula in the college for supervised experiences working with individual children, small-group instruction, parent communication, and interdisciplinary team work. The laboratory provides the liaison between the community and the college to facilitate service scheduling, record keeping, and communications with other agencies.

Services provided to children range from individual tutoring to group counseling. Psycho-educational assessments for a wide range of questions relating to preschool enrichment, early identification of gifted and handicapped children, academic progress and motivation, behavioral control and personal adjustment are provided. In addition, reading diagnostic evaluations, individual and small-group remedial enrichment instruction, consultative services to schools, and consultation to parents regarding reading development are also available services. For the learning disabled student, the laboratory provides tutorial, diagnostic, and small group instruction.

The instructional programs utilizing the Interdisciplinary Educational Laboratory include counseling, reading, special education, school psychology, and talented and gifted. A comprehensive test facilities videotaped demonstrations of evaluations, and in-class demonstrations for paper and pencil types of assessments are provided.

For the graduate students, a major goal of the laboratory is to provide them with an opportunity to work on cases with members of variety of disciplines. The interaction between the disciplines provides a broadening of diagnostic, conceptual, and therapeutic skills.

**Educational Opportunity Programs and Special Community Services**

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' academic, social, and financial needs. A primary goal for the EOP staff is to provide support 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 seven working components.

**The University of Northern Iowa Center for Urban Education (UNI-CUE)** 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 Special Support Services Program** is designed to serve eligible Project students in a positive learning environment and provide academic and supportive services to increase the retention and graduation rate of Special Support 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 counselor component works closely with the Center for Academic Achievement to provide the maximum impact on reducing academic deficiencies.

**The Graduate Educational Opportunity Program (GEOP)** offers supportive services to low-income and minority group graduate students.
In addition to actively recruiting students for the University of Northern Iowa graduate studies, the program provides information and assistance to EOP graduates of the University of Northern Iowa who wish to take higher degrees at other institutions.

The Ethnic Minorities Cultural and Educational Center (EMCEC) was established on campus to provide a physical atmosphere for the effective analysis of minority cultures and to further cross-cultural and racial understanding through participation in its programs by all segments of the University of Northern Iowa-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.

The Center for Academic Achievement provides the University community with a variety of supportive services that will enhance students’ academic achievement and persistence toward graduation. Through service to students, faculty and staff, the Center works to enrich the total learning environment. A staff of full-time professionals and part-time student assistants is available to meet individually with students. Emphasis is placed on time management, integrating materials from lectures and textbooks, critical thinking, and preparing for and taking examinations. The Center also provides tutorial services.

Upward Bound is a pre-college preparatory program designed to generate the skills and motivation necessary for success in education beyond high school among young people from low-income backgrounds “who have academic potential, but who may lack adequate secondary school preparation. The goal of the program is to increase the academic performance and motivational levels of eligible enrollees so that such persons may complete secondary school and successfully pursue post-secondary educational programs.”

Upward Bound focuses on students who, at the time of initial selection, have completed the eighth grade but have not entered the twelfth grade, and are at least 13 years old, but not older than 19. Upward Bound provides:

1. Instruction in reading, writing, mathematics and other subjects necessary for success beyond high school;
2. Personal counseling;
3. Academic advice and assistance in high school course selection;
4. Exposure to cultural events, academic programs, and other activities not usually available to disadvantaged youth;
5. Exposure to activities designed to acquaint youths participating in the project with the range of career options available to them;
6. Instruction designed to prepare young people for careers in which persons from disadvantaged backgrounds are under-represented;
7. On-campus residential programs.

The Educational Talent Search Program is an educational counseling service designed to assist 950 students to continue in and graduate from high school and enroll in an educational program beyond high school. We also assist high school and college dropouts to return to an educational program.

Assistance is provided through counsel regarding the variety of opportunities for further schooling, help and information regarding admission and financial aid application processes, advice on career choices and appropriate post-secondary institutions, college tours, workshops, and tutoring.

All services are free of charge.

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 Support Services Program, Student Services Center, University of Northern Iowa, Cedar Falls, IA 50614
- Graduate EOP, EMCEC, University of Northern Iowa, Cedar Falls, IA 50614
- Ethnic Minorities Cultural and Educational Center, University of Northern Iowa, Cedar Falls, IA 50614
- Upward Bound, 715 East Fourth Street, Waterloo, IA 50703
- Educational Talent Search, 715 East Fourth Street, Waterloo, IA 50703

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 multi-racial student body 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 University of Northern Iowa program of extension and consultant services. The Laboratory School operates on an open-door policy; visitation and consultation are encouraged.

The Speech and Hearing Clinic

This clinic offers speech and hearing services 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 143. At the undergraduate level the University of Northern Iowa 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 University of Northern Iowa, and details of this unique degree program are given on page 46. 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 significant progress while at the university toward:

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

To achieve these ends 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 the 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

Note: Programs requiring more than 130 semester hours (see major requirements) are identified as extended and may include up to 144 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, special education, and speech correction.
3. Early childhood and elementary teachers, kindergarten through sixth grade.
4. Middle School/Junior 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 45 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 total number of semester hours accepted as advanced standing for R.N. certification are applied to General Education requirements in the areas of biology, chemistry, and interpersonal relationships. Specifically, the 10 hours would be dispersed in the following way:

- **Category III. Natural Science and Technology**
  - (a) Sphere I — 3 hrs.
  - (b) Sphere II — 3 hrs.

- **Category IV. Social Science**
  - (a) Group A (2 courses) — 4 hrs.
  - Exempt from Group C.

The student will be held to courses required in the remaining General Education 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 Individual Studies. Students entering this program will confer with the Program Administrator 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 Northern Iowa a year’s credit from the professional school to complete the requirements for a Bachelor of Arts degree at University of Northern Iowa:

- Cytotechnology
- Dentistry
- Hospital and Health Administration
- Medicine
- Medical Technology
- Physical Therapy

A student shall complete at the University of Northern Iowa all the requirements in General Education (47 semester hours) and the requirements for a major in Science and have a total of at least 96 semester hours at University of Northern Iowa. 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 Iowa the work required for admission while at the same time meeting University of Northern Iowa degree requirements. The student will work with a pre-professional adviser who will help in the selection of proper courses.

a. Acceptance of credit from professional schools of dentistry, medicine, osteopathy, and podiatry toward meeting part of degree requirements:

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

b. Acceptance of credit from a professional school of Medical Technology, 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 Northern Iowa and the College of Nursing at the University of Iowa, students may enroll at the University of Northern Iowa for the first two years of the four-year Bachelor of Science in Nursing program. The program is completed at the University of Iowa and the degree awarded by that institution. A carefully planned sequence of courses, covering two academic years, has been developed for students who find it advantageous to begin the four-year baccalaureate program at the University of Northern Iowa. Students who complete the two-year sequence with at least a 2.20 grade point average on all college work undertaken may apply for admission to the College of Nursing, University of Iowa, for five academic semesters of study in the nursing major. Upon completion of the major, graduate 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 student who have earned the required 2.20 grade point average will submit an application to the University of Iowa for admission to the College of Nursing. The Admissions Committee
of the College of Nursing reserves the right to select those students for the summer session course in Foundations of Nursing who are deemed most likely to succeed in the nursing major. Tentative admission statements will be given to qualified students by April, with final admission statements reserved until sophomore grades are certified by the University of Northern Iowa.

b. Freshman Academic Program with the Allen Memorial School of Nursing. The University of Northern Iowa cooperates with Allen Memorial School of Nursing, Waterloo, Iowa, to offer the freshman year academic work. Admission to the program is a joint action of the School of Nursing and the university. Applications should be made to the School of Nursing.

c. Three-Year Program in Medical Technology. The University of Northern Iowa cooperates with Consolidated Regional Laboratories located in Waterloo, Iowa, 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 Iowa 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 Iowa cooperates with the University of Iowa to offer the first three years of work; the University of Iowa 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 Iowa, and completion of the second year at the University of Iowa 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 Iowa and a copy of the combined program requested.

g. Three-Year Program in Cytotechnology. The University of Northern Iowa cooperates with Mayo School of Health-Related 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.

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.

3. Army Reserve Officers' Training Corps (ROTC)

a. The Four-Year Program. The Army ROTC Four-Year Program consists of two parts: the Basic Course and the Advanced Course.

The Basic Course is usually taken during the freshman and sophomore years. Students taking a Basic Course class do not incur a military commitment (except for scholarship students). The Basic Course is designed to allow students to decide if the discipline and challenges of being an Army officer are desirable after graduation.

The Advanced Course is a mutual commitment in which the student confirms a commitment by signing a contract which certifies that a service obligation is understood. The Department of the Army confirms a commitment by paying $1,000 a year during the last two years of the program.

b. The Two-Year Program. This program is designed for students about to graduate from junior college or a community college.

It is also available to service veterans and students at University of Northern Iowa who missed enrolling in the Basic Course.

The Two-Year Program is essentially the ROTC Advanced Course, however, before enrolling, students who have not graduated from Basic Training must agree to complete the U.S. Army ROTC Basic Camp.

c. The Simultaneous Membership Program. The Simultaneous Membership Program (SMP) allows students to be members of the Iowa National Guard or the Army Reserve and Army ROTC simultaneously.

ROTC SMP students are paid at the rate of a Sergeant (E-5) for their Reserve training assemblies, plus $1,000 a year subsistence allowance from the ROTC Advanced Course, and up to $1,400 a year in New G.I. Bill educational assistance benefits. Many ROTC SMP students also qualify for the Student Loan Repayment Program.

d. ROTC Scholarships. U.S. Army ROTC two-, three-, and four-year scholarships are available. They cover full tuition and required educational fees, and provide an amount for textbooks, supplies and equipment.

Army ROTC scholarships also provide a subsistence allowance of $1,000 each school year that the scholarships are in effect. Winning and accepting an ROTC scholarship does not preclude accepting other scholarships. Additional scholarship information is contained on page 24 of this bulletin.

e. Additional Information. Additional information regarding U.S. Army ROTC is contained under the section titled Military Science, on page 87 of this bulletin. The specific courses offered by the Department of Military Science are listed under the Department of Military Science on pages 146-147. For additional information, write to the University of Northern Iowa, Department of Military Science, Old Auditorium Building (Room 39), Cedar Falls, IA 50614-0142; or call (collect) the Student Adviser at (319) 273-6105.
Bachelor of Arts — Liberal and Vocational Arts Curricula

All candidates on this program will complete the following pattern:

<table>
<thead>
<tr>
<th>General Education</th>
<th>Minimum 47</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major, Minor, Foreign Language, Electives</td>
<td>77</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>124</strong></td>
</tr>
</tbody>
</table>

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
- Biotechnology
- Chemistry
- Chemistry-Marketing
- Communication and Theatre Arts
- Communications/Public Relations
- Communications/Radio-TV
- Community Health Education
- Community Recreation
- Computer Information Systems
- Computer Science
- Criminology
- Earth Science
- Economics
- English
- English Linguistics
- Environmental Perceptions
- Family Life Education
- French
- General Business Concepts
- Geography
- General Industry and Technology
- German
- Graphic Communications
- History
- Home Economics
- Humanities
- International Affairs
- Jazz Studies
- Journalism
- Library Science
- Mathematics
- Media
- Music
- Philosophy
- Physics
- Political Science
- Psychology
- Religion
- Russian
- Soviet Area Studies
- Sociology
- Spanish
- Teaching English to Speakers of Other Languages (TESOL)
- Women's Studies

**Bachelor of Arts — Teaching Program Curricula**

All candidates on this program will choose one of the following patterns not later than the beginning of the sophomore year.

**A. Preparation for teaching in the secondary school or in special subjects.**

<table>
<thead>
<tr>
<th>General Education</th>
<th>Minimum 47</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major, minor, electives</td>
<td>51</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>130</strong></td>
</tr>
</tbody>
</table>

**B. Preparation for teaching in the elementary school (kindergarten and grades 1-6).**

<table>
<thead>
<tr>
<th>General Education</th>
<th>Minimum 47</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Education Requirement</td>
<td>32</td>
</tr>
<tr>
<td>Major requirements</td>
<td>33</td>
</tr>
<tr>
<td>Concentration area and electives</td>
<td>17-26</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>130-139</strong></td>
</tr>
</tbody>
</table>

**C. Preparation for teaching in early childhood education (nursery school and kindergarten).**

<table>
<thead>
<tr>
<th>General Education</th>
<th>Minimum 47</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Education Requirement</td>
<td>33</td>
</tr>
<tr>
<td>Major requirements</td>
<td>30</td>
</tr>
<tr>
<td>Other requirements and electives</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>130</strong></td>
</tr>
</tbody>
</table>

**Professional Education Requirements**

All candidates for the Bachelor of Arts — Teaching Program are required to take the courses in professional education 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 Level 1.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Relations: Awareness and Applications</td>
</tr>
<tr>
<td>Mainstreaming the Exceptional Child in Regular Classroom Settings</td>
</tr>
<tr>
<td>Educational Media</td>
</tr>
</tbody>
</table>

**Level I**

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Experience: Exploring Teaching</td>
</tr>
<tr>
<td>Dynamics of Human Development</td>
</tr>
</tbody>
</table>
Level II
(Before enrolling in Level II, the student must be officially admitted to the Teacher Education Program.)

20:018 Field Experience: Teacher as a Change Agent 1
20:040 Nature and Conditions of Learning 3
25:050 Classroom Evaluation Instruments 2

Level III
26:119 Schools and American Society 3

Student Teaching
28:1xx Teaching (Course number denotes area in which experience is gained: 28:132, 134, 135, 137, 138, 139, 140, 250) 12

Professional Education Waivers/Substitutions
1. Industrial Technology majors will be waived from 24:020. A student changing majors (from Industrial Technology) would be required to complete 24:020.
2. Physical Education majors may substitute 42:174 for 25:050. A Physical Education major carrying an academic minor or changing majors (from Physical Education) would be required to complete 25:050.
3. Physical Education majors will be waived from 22:150. A Physical Education major carrying an academic minor or changing majors (from Physical Education) must complete 22:150.
4. Music Education majors will be waived from 25:050. A Music Education major carrying an academic minor or changing majors (from Music Education) must complete 25:050.
5. Music Education majors will be waived from 24:020. A Music Education major carrying an academic minor or changing majors (from Music Education) must complete 24:020.
6. Special Education majors will be waived from 22:150.
7. Art Education majors will be waived from 24:020.

Application for Admission to the Teacher Education Program must be made before enrolling in the Level II courses, and 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 2.50 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. Fee payments for tests, registration procedures, and test date information are available by contacting Academic Advising Services, Baker 161, University of Northern Iowa (telephone 319-273-6023).

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.

For student teaching, a student must have a 2.50 GPA in her/his academic department or departmental approval; 2.50 GPA in sequence and methods course(s), not lower than a 2.00 GPA in methods course(s); 2.50 GPA 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 videotaped and directed observation as well as field experience and participation, culminating in the actual period of student teaching in the senior year.

Videotaped 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 a full semester in length. During this time, the student assumes increasing responsibility for the teaching-learning activities in the classroom. The student receives twelve (12) hours of credit and is evaluated on a credit/no-credit/withdrawal system. (See page 55.) Interinstitutional student teachers who enroll at University of Northern Iowa, 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. Students are required to enroll in 19:070 concurrently with student teaching.

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
Anthropology
Art Education
Biology
Business
Chemistry
Communication and Theatre Arts
Early Childhood Education
Early Childhood Special Education
Earth Science
Elementary Education
English
French
Geography
German
Health Education
History
Home Economics
Mathematics
Music

Minors
Anthropology
Art
Art (K-6)
Basic Science (K-6)
Biological Science
Business
Chemistry
Coaching
Communication and Theatre Arts
Communication and Theatre Arts (K-6)

Bachelor of Arts

Physical Education
Physics
Political Science
Psychology
Safety Education
Science: Plan A — Junior High School Science
Science: Plan B — All Sciences
Social Science
Sociology
Spanish
Special Education — Mental Disabilities: Moderate/Severe/Profound
Teaching English to Speakers of Other Languages (TESOL)
Technology Education
TESOL/Modern Language
Vocational Home Economics

Computer Science
Early Childhood
Earth Science (K-6)
Economics
Elementary School Media Specialist (K-6)
English
English/Language Arts (K-6)
French
Geography
German
Bachelors of Arts/Music

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 the Department of Communication and Theatre Arts. A minimum total of 136 semester hours is required for the degree major in Art. The Art major is designed to provide professional career training in all studio areas. A minimum total of 130 semester hours is required for the degree major in Music Theatre. 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:

<table>
<thead>
<tr>
<th>Art Major</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>47</td>
</tr>
<tr>
<td>Major Requirements</td>
<td>86</td>
</tr>
<tr>
<td>General Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>136</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Music Theatre Major</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>47</td>
</tr>
<tr>
<td>Major Requirements</td>
<td>80</td>
</tr>
<tr>
<td>General Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>130</td>
</tr>
</tbody>
</table>

The Bachelor of Fine Arts degree is a highly specialized program which provides strong emphasis on work in professional career training.

The Bachelor of Fine Arts Degree Program in the Department of Art does not provide for certification to teach. Additional hours are necessary to meet certification requirements.

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 136 semester hours for the degree. The Music Education major carries certification to teach music in grades K-6 and 7-12. The Performance major with emphases in voice, piano, organ and band-orchestral instruments, and the Theory-Composition 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 skill is required.

Bachelor of Music Degree Curricula

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

<table>
<thead>
<tr>
<th></th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>47</td>
</tr>
<tr>
<td>Music requirements (applied, theory, history and literature, conducting, ensembles, recital, composition, electives)</td>
<td>62-80</td>
</tr>
<tr>
<td>General electives*</td>
<td>3-21</td>
</tr>
<tr>
<td></td>
<td>130*</td>
</tr>
</tbody>
</table>

The following majors are offered on this degree program:

- Music Education (Teaching) — 62-65 hours
- Performance (Voice, Piano, Organ, Band-Orchestral Instruments) — 80 hours
- Theory-Composition — 80 hours

*Musical Education majors must complete the Professional Education Requirements (see pages 42-43) in addition to Music and General Education requirements. With approved substitutions, the minimum semester-hour requirements total 140 hours. The Music Education major carries certification to teach for grades K-6 and 7-12. (A course in human relations is 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, pages 91-92, 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 post-baccalaureate study in graduate or professional schools.

Majors for the Bachelor of Science degree include: Applied Physics, Biology, Chemistry, Geology, Physics, and Home Economics — Dietetics.

Requirements for the majors in Applied Physics, Biology, Chemistry, Geology, and Physics 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 47 semester hours selected from courses included in the six General Education categories.

The major in Home Economics — Dietetics requires a total of 69-72 semester hours of required course work in the areas of home economics, biology, chemistry, and management.

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
Biology
Chemistry
Geology
Home Economics — Dietetics
Physics

Bachelor of Technology

This degree has four program areas that provide a choice of majors: Construction, 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 Major — 134 hours

In the construction major, the student is involved with an interdisciplinary curriculum with emphases in construction, business, management, and science. Graduates are prepared for positions such as: project engineer or manager, supervisor, and field/office engineer. Some graduates with entrepreneurial potential develop their own construction-related company.

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 service 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 supervision, field service and product utilization, safety, quality control, training, technical representation, technical sales and distribution, or personnel.

D. Vocational-Technical Education Major — Teaching — 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 concentration may be: Construction, Graphic Communications, Manufacturing Technology (Production or Mechanical Design/Drafting), Energy and Power Technology, or a technical concentration 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 (pages 80 to 81). Majors offered under this degree are:

Construction
Energy and Power Technology
Manufacturing Technology
Vocational-Technical Education — Teaching

The General Education program of 47 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.
Bachelor of Technology/Bachelor of Liberal Studies

Technology Programs

Technology programs require the completion of 130 semester hours which include 47 semester hours of General Education. Candidates on technology programs will complete one of two patterns for:

A. Construction — 130 hours
B. Energy and Power Technology — 130 hours
C. Manufacturing Technology — 130 hours

Majors

Construction
Energy and Power Technology
Manufacturing Technology

Bachelor of Liberal Studies

In addition to the preceding conventional degree programs, the University of Northern 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, on-campus 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 transferable 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 hours (93 quarter hours) of college work acceptable for credit toward graduation at 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 earned 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 and a 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 courses are taken. (At the University of Iowa and the University of Northern 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 at the Iowa Regents universities.
3) 30 semester hours (45 quarter hours) of credit earned 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 — Requirement are those specified as Group Requirements of the College of Science 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 the 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.

Grade Requirements:

1) Humanities
2) Communications and Arts
3) Natural Sciences and Mathematical Disciplines
4) Social Sciences
5) 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.

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 (New Students Fall 1988)

Requirements of the General Education Program:

Summary:
- Category 1: Civilizations and Cultures 11 hours
- Category 2: Fine Arts, Literature, Philosophy and Religion 6 hours
- Category 3: Natural Science and Technology 9 hours
- Category 4: Social Science 9 hours
- Category 5: Communication Essentials 9 hours
- Category 6: Personal Wellness 3 hours

Total Program Minimum 47 hours*

*For students admitted to the University of Northern Iowa prior to fall 1990, the Speech and Listening course included in the Communication Essentials category is not required.

Courses numbered 000-099 are open primarily to freshmen and sophomores. Courses numbered 100-199 are open primarily to juniors and seniors.

Courses:

Category 1: Civilizations and Cultures 11 hours

A. Humanities (8 hours required)
   68:021 Humanities I (4 hrs.)
   68:022 Humanities II (4 hrs.)

B. Non-Western Cultures (3 hours required)
   68:121 Non-Western Cultures: Russia/Soviet Union (3 hrs.)
   68:122 Non-Western Cultures: Japan (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.)
   68:129 Foreign Area Studies: Latin America (3 hrs.)
   68:132/99:132 Native North America (3 hrs.)
   68:137/99:137 Native Central and South America (3 hrs.)
   96:070 Latin American Civilization (3 hrs.)

Category 2: Fine Arts, Literature, Philosophy and Religion 6 hours

A. Fine Arts (3 hours required)
   42:034 Survey of Dance History (3 hrs.)
   50:044 Theatrical Arts and Society (3 hrs.)
   52:020 Our Musical Heritage (3 hrs.)
   52:030 Music of Our Time (3 hrs.)
   60:002 Visual Inventions (3 hrs.)
   60:004 Visual Perceptions (3 hrs.)

B. Literature, Philosophy, or Religion (3 hours required)
   62:031 Introduction to Literature (3 hrs.)
   64:124 Religions of the World (3 hrs.)
   65:021 Philosophy: Basic Questions (3 hrs.)

Category 3: Natural Science and Technology 9 hours

(Students are required to take a course with a scheduled laboratory from either Sphere I or Sphere II or another laboratory course offered by the College of Natural Sciences. Only 8 hours are required for students who meet the General Education laboratory requirement with a course other than one listed in Sphere I or II.)

A. Sphere I (3 or 4 hours required)
   Courses are open only to students with unconditional university admission status. (College of Natural Science majors may meet Sphere I requirements by completing 86:044 or 86:070; 88:054 or 88:130 and 88:060. Home Economics majors may meet the Sphere I requirement by completing 86:044 or 86:061.)
   82:031 Activity-Based Science I (4 hrs.)*
   84:012 Energy and Life (3 hrs.) (One year of high school chemistry or equivalent.)
   86:010 Principles of Chemistry (3 or 4 hrs.)*
   87:031 Physical Geology (4 hrs.*)(One year of high school chemistry or equivalent.)
   88:011 Conceptual Physics (4 hrs.)*
   88:012 Elements of Physics (3 hrs.)

B. Sphere II (3 or 4 hours required)
   Courses are open only to students with unconditional university admission status. (All Sphere II courses have as a prerequisite the completion of the Sphere I requirement.)
   82:032 Activity-Based Science II (4 hrs.)*
   84:014 Continuity of Life (3 hrs.)
   84:015 Laboratory in Life Science (1 hr.)
   87:010 Astronomy (3 hrs.)
   87:021 Elements of Weather (3 hrs.)
   87:032 Life Through Time (3 hrs.)
   97:031 Physical Geography (3 or 4 hrs.)*
   99:010 Human Origins (3 hrs.)
   *Lab included if 4-hour course is elected.

C. Capstone (2 hours required)
   82:140 Environment, Technology, and Society (2 hrs.) (Student must have completed Sphere II and have junior or senior standing.)
Category 4: Social Science 9 hours

Required: one course from group A, one course from group B, and one course from group A, B, or C. The courses selected may not have the same course number prefix, i.e., department number.

A. Group A

31:053 Human Identity and Relationships (3 hrs.)
40:008 Introduction to Psychology (3 hrs.)
97:010 Human Geography (3 hrs.)
98:058 Principles of Sociology (3 hrs.)
99:011 Culture, Nature and Society (3 hrs.)

B. Group B

(Information Management teaching majors only may substitute
92:053 for 92:024.)
90:023 American Civilization (3 hrs.)
92:024 Economics for General Education (3 hrs.)
94:015 American Government in a Comparative Perspective (3 hrs.)
94:026 World Politics (3 hrs.)
97:025 World Geography (3 hrs.)

C. Group C

45:041 Social Welfare: A World View (3 hrs.)
45:045/98:045 American Racial Minorities (3 hrs.)
90:020 Women, Men and Society (3 hrs.)

Category 5: Communication Essentials 9 hours*

A. Writing and Reading (3 hours required)
62:065 Introduction to College Writing (3 hrs.)

B. Speaking and Listening (5 hours required)*
50:023 Oral Communication (3 hrs.)

C. Quantitative Techniques and Understanding (3 hours required)
80:023 Mathematics in Decision Making**

Category 6: Personal Wellness 3 hours

44:010 Personal Wellness (3 hrs.)

TOTAL 47 hours*

*For students admitted to University of Northern Iowa prior to fall 1990, the Speech and Listening course included in the Communication Essentials category is not required.
**Students with Math ACT scores that are 26 or higher will be placed in 80:072 or 80:092 as follows:
Those with four years of college prep math with a grade of B or higher in the senior-level course will be placed in the highest math course, 80:092 Introduction to Mathematical Modeling.
Those not satisfying these criteria will be placed in 80:072 Introduction to Statistical Methods.

General Education courses included in major or minor program requirements are distinguished by bold italics.

Administrative Policies:

1. General Education courses may be used to satisfy requirements for both the General Education program and the major, minor, and program emphases. For purposes of determining the length of the majors, departments may double count up to three courses from the elective categories of the new General Education program, with no restrictions on the double counting of the courses in the required categories of General Education.

2. Departments offering a General Education course may preclude their major or minor students from taking that particular course to satisfy the requirements for General Education, the major, or the minor.

3. General Education requirements can be met through CLEP examinations, departmental examinations, and the Advanced Placement Program of the College Entrance Examination Board. A student who receives CLEP credit in both the physical and biological sciences shall be considered to have fulfilled the laboratory requirement.

4. No General Education course may be taken for graduate credit.

5. No General Education course may have a non-General Education course as a prerequisite.

6. All courses taken to meet General Education requirements must be taken for graded credit.

7. The Associate of Arts degree from Iowa community colleges shall continue to be accepted, according to approved articulation agreements, to meet General Education requirements.

8. The General Education program requirements apply to all undergraduate degree programs.

General Education: New Courses in Old Categories

Category 1: Principles of the Physical Universe
82:031 Activity-Based Science I (4 hrs. *)
84:012 Energy and Life (3 hrs.)
86:010 Principles of Chemistry (3 or 4 hrs. *)
87:010 Astronomy (3 hrs.)
87:021 Elements of Weather (3 hrs.)
87:031 Physical Geology (4 hrs. *)
88:011 Conceptual Physics (4 hrs. *)
88:012 Elements of Physics (3 hrs.)
97:031 Physical Geography (3 or 4 hrs. *)

Category 2: Life and Its Interrelationships
82:032 Activity-Based Science II (4 hrs. *)
84:014 Continuity of Life (3 hrs.)
84:015 Laboratory in Life Science (1 hr.)
87:032 Life Through Time (3 hrs.)
99:010 Human Origins (3 hrs.)

Category 3: Human Identity and Relationships
31:953 Human Identity and Relationships (3 hrs.)
40:006 Introduction to Psychology (3 hrs.)
45:045/98:045 American Racial Minorities (3 hrs.)
65:021 Philosophy: Basic Questions (3 hrs.)
90:020 Women, Men and Society (3 hrs.)

Category 4: Societies: Institutions, Systems and Ideologies
45:041 Social Welfare: A World View (3 hrs.)
92:024 Economics for General Education (3 hrs.)
94:026 World Politics (3 hrs.)
97:010 Human Geography (3 hrs.)
98:058 Principles of Sociology (3 hrs.)
99:011 Culture, Nature and Society (3 hrs.)

Category 5: Sources of Western Civilization
68:021 Humanities I (4 hrs.)
68:022 Humanities II (4 hrs.)

Category 6: Civilization and Culture of the United States
90:023 American Civilization (3 hrs.)
94:015 American Government in a Comparative Perspective (3 hrs.)

Category 7: Other Cultural and Subcultural Traditions
64:124 Religions of the World (3 hrs.)
68:121 Non-Western Cultures: Russia/Soviet Union (3 hrs.)
68:122 Non-Western Cultures: Japan (3 hrs.)
68:124 Foreign Area Studies: China (3 hrs.)
68:125 Foreign Area Studies: India (5 hrs.)
68:127 Foreign Area Studies: Middle East (3 hrs.)
68:128 Foreign Area Studies: Africa (3 hrs.)
68:322/99:132 Native North America (3 hrs.)
68:137/99:137 Native Central and South America (3 hrs.)
68:070 Latin American Civilization (3 hrs.)

Category 8: Environment, Technology, and the Future
82:149 Environment, Technology, and Society (2 hrs.)
97:025 World Geography (3 hrs.)

Category 9: Communicative Processes
50:023 Oral Communication (3 hrs.)
62:005 Introduction to College Writing (3 hrs.)
Category 10: Mathematical and Scientific Processes

- 80:023 Mathematics in Decision Making (3 hrs.)
- 80:072 Introduction to Statistical Methods (3 hrs.)
- 80:092 Introduction to Mathematical Modeling (3 hrs.)

Category 11: Artistic Processes

- 42:034 Survey of Dance History (3 hrs.)
- 50:044 The Theatrical Arts and Society (3 hrs.)
- 52:020 Our Musical Heritage (3 hrs.)
- 52:030 Music of Our Time (3 hrs.)
- 60:002 Visual Inventions (3 hrs.)
- 60:004 Visual Perceptions (3 hrs.)
- 62:031 Introduction to Literature (3 hrs.)

Category 12: Personal Wellness

- 44:010 Personal Wellness (3 hrs.)

*Lab included if 4-hour course is elected.

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 alternative 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 Psychology
  - Gerontology Program Certificate

- Department of Social Work
  - Substance Abuse Counseling Certificate

- Department of Sociology 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, 135, 138, and 142 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

1. 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 Iowa.
2. 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 and/or graduation, which are higher than the grade point requirements for all university students. Students are advised to consult the section of this catalog that lists the specific major.

C. Communication

Competence in reading, speaking, and writing is required of all candidates seeking degrees or university recommendations for certification. All students who enter the University of Northern Iowa on or after fall semester 1988 who are candidates for baccalaureate degrees are required to demonstrate competence in writing by passing the General Education writing course and meeting the writing requirements for their academic major.

D. Foreign Language Competency Requirement

Students entering the University of Northern Iowa who graduate from high school in 1989 are required to demonstrate a level of competence in a foreign language (classical or modern) equivalent to that achieved after the second 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 two years of high school study in one foreign language.
2. Satisfactory* completion of a combination of high school and college study in one language equivalent to the competence achieved after the second semester at the college level.
3. Satisfactory performance in an achievement examination measuring proficiency equivalent to that attained after the second semester of college study in one foreign language.

*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 departmental examination, by Advanced Placement, and credit established by examination of other colleges and universities.

G. 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.

H. 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.

I. 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 and earning not less than 32 hours of credit.

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 twelve (12) 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 will be required if the student majors in a field other than elementary education.

3. Not more than twelve (12) hours of credit in student teaching may be used toward the hours required for graduation.

4. 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.

5. A student must have a 2.50 GPA in her/his major.

*Authorization to perform a specific type of service at a particular grade level(s). Applicant must complete an approved program.

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 Provisional Certificate, valid for a period of two years for the kind of service indicated 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 ENDORSEMENT in each subject to be taught. Endorsements are issued by the Iowa Department of Education on the recommendation of an acceptable preparatory educational institution. To secure the recommendation of the University of Northern Iowa, 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 will expect such students to demonstrate excellence of scholarship and meet standards required of its own graduates. Such students must have earned at least 20 hours of residence credit and at least 12 semester hours must be in the area for which endorsement is requested.

Iowa requires a course in human relations.

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 Iowa State Board of Education and are subject to change by this body at any time. The Bureau of Teacher Education and Certification of the Department of Education 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 Education
Bureau 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 Northern 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 Iowa offers nine 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
- Geography
- German
- Health Education
- History
- Home Economics
- Industrial Arts
- Library Science Mathematics
- Mathematics for Elementary and Middle Schools (K-9)
- Music
- Physical Education
- Physics Education
- Political Science
- Psychology, General
- 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
- TESOL/Modern Languages
- Translation and Interpretation (Spanish/English)
- Two Languages: French/German, Spanish/French, German/Spanish

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
- General Educational Psychology
- Middle School/Junior High School Education
- Reading Education
- School Business Management
- School Counseling
- Secondary Principalship
- Secondary Reading
- Special Education
- Teaching

C. **Master of Business Administration** — a minimum of 30 semester hours.

D. **Master of Music** — a minimum of 30 semester hours.

**Majors**
- Composition
- Conducting
- Music Education
- Music History
- Performance

E. **Master of Philosophy** — a minimum of two semesters’ study and/or research and completion of a thesis.

F. **Specialist** — a minimum of 30 semester hours beyond the master’s degree.

**Major**
- Science Education

G. **Specialist in Education** — a minimum of 30 semester hours beyond the master’s degree.

**Majors**
- College Student Personnel Services
- Curriculum Coordinator
- Elementary Principal
- Reading Education
- School Business Management
- School Psychology
- Secondary Principal
- Special Education:
- Administration Emphasis
- Curriculum Consultant Emphasis
- Superintendent

H. **Doctor of Education** — a minimum of 60 semester hours beyond the master’s degree.

I. **Doctor of Industrial Technology** — a minimum of 64 semester hours beyond the master’s degree.
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 17 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 hours
- All Other Undergraduates: 18 hours
- Graduate Students: 15 hours

Undergraduate students who wish to register for an overload must complete a Student Request Form with their cumulative University of Northern Iowa grade point average indicated and submit it to their adviser and to the Registrar’s Office 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 above GPA at the University of Northern Iowa 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 Registrar’s Office. A 3.0 or above cumulative GPA at the University of Northern Iowa 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 nine (9) hours; that normally permitted during each four-week split summer session is four-five (4-5) hours; that during the two-week post session, (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

<table>
<thead>
<tr>
<th>Classification</th>
<th>Earned Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>less than 30</td>
</tr>
<tr>
<td>Sophomore</td>
<td>30-59</td>
</tr>
<tr>
<td>Junior</td>
<td>60-89</td>
</tr>
<tr>
<td>Senior</td>
<td>90 and over</td>
</tr>
</tbody>
</table>

Declaration of Major — Degree Audit/Advisement Report

The declaration of a major is made through the department offering the major. The choice of major should be made as early as possible in the student’s university career, usually by the beginning of the sophomore year, in order to complete the program and fulfill requirements for graduation within the normal four years of academic work.

When the major is declared, the student is assigned an adviser in the major department and a Student Declaration of Curricular Intent with this information is filed by the student with 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 Degree Audit/Advisement Report. 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 (Withdrawn), 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 by 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.)
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 Iowa should advise at as early a date as possible the Office of the Registrar in writing 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 Incomplete Work

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

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

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

Work left incomplete at the end of a semester or summer session will be reported as a Failure unless a report of Incomplete (I) has been authorized by the instructor. The I is restricted to students doing satisfactory work in the class who, because of extenuating circumstances, are unable to complete the work of the course. The I is limited to assigned work during the final sixth of the term. If a course is reported as 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 instructor of the course. The extension, if approved, would be for another six months period unless designated otherwise by the instructor.

Some courses continue beyond the normal ending date of the semester or session. In such cases the initial grade reported will be an RC 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 previously completed successfully. When such regression occurs, the regressive course will be available on an ungraded (credit/no credit) basis only. Credit may be earned but the hours earned will increase the student's 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 applies will be identified in the Schedule of Classes.

Duplication

When two courses have content which is highly similar, e.g., one for general education and one for major/minor requirements, the department offering the course(s) will determine if degree credit can be earned in both course(s). If the department will not allow degree credit in both courses, the credit in the course taken second will increase the student's 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
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 grade points deficient of the number necessary for a 2.00 index at University of Northern Iowa will be warned.

**Probation:** Any student who is deficient from six to thirteen grade points for a 2.00 cumulative index at the University of Northern Iowa will be placed on probation. No entry of this is made on the student’s permanent record.

**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 the University of Northern Iowa 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 non-residence credit taken at this university is considered.

- **a.** Those whose grade index 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 footnote 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 C- or higher is required in a course to receive credit on the “Credit/No Credit” option.
3. Not more than 22 hours of ungraded course work in addition to courses authorized to be offered only for ungraded credit may be taken toward any bachelor’s degree.
4. Ungraded credit may not be applied to work required for a major or minor except with the consent of the head of the department in which the course is offered.
5. No course taken in the “Credit/No Credit” option may be applied toward meeting a General Education Requirement.
6. Except for Field Experience: Exploring Teaching (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 Professional Education 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.
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 re-evaluation. 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 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 University of Northern Iowa. Some departments may require a higher minimum grade point average than 2.5.
C. A University of Northern Iowa faculty member approves all arrangements, including projects to be completed, and agrees to supervise and evaluate the student’s learning experience.
D. Approval is obtained from the academic department head granting credit.
E. Co-op staff can develop a field placement opportunity and arrange for employer’s supervision.

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 will release a student from a course requirement, but gives no credit.

A grade below C gives neither credit nor release and is not recorded on the student’s record. Credit earned by examination is recorded on the student’s record only as Passed, or Released. The results are not counted in a student’s grade index.

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

Application for credit by examination is made to the Office of the Registrar, and approved by the head of the department offering the course and the dean of the college in which the course is offered.

The department 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 earned by examination, see page 50.

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 pp. 10-11 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 must also have written approval from the Office of the Registrar 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 in General Education and the Disciplines
Writing fosters learning, develops thinking, and provides an essential means of communication in a literate society. Northern Iowa is committed to helping students develop their ability to write. Students have opportunities to write both in general education and in each undergraduate major. The general education course “Introduction to College Writing” lays a foundation for the writing required within academic majors. Each department sets the writing requirements for its majors. Because writing needs vary across disciplines, the requirements vary across departments. The ability to work with written language — reading and writing — contributes to success not only in the classroom but also in students’ later professional and personal lives.

Students who enroll in or after the fall 1988 semester satisfy Northern Iowa’s requirement for writing competency by completing “Introduction to College Writing” and fulfilling the writing requirements in their major. Students who enrolled before the fall 1988 semester may satisfy the requirement for writing competency as outlined above or by passing the Writing Competency Examination. Students register for the examination during the regular class registration periods.

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 the University of Northern Iowa 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 Sciences-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 University of Northern Iowa. 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 50th percentile using these norms. A list of subject courses for which CLEP examinations may be taken at University of Northern Iowa 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 p. 50.

Credit established by CLEP at an institution participating in the Iowa 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 University of Northern Iowa 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 $35 is charged for each examination. Fee payment, registration procedures, and test date information are available by contacting Academic Advising Services, Student Services Center, University of Northern Iowa (telephone: 319-273-6024).
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. University of Northern Iowa 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, University of Northern Iowa. (For limitations in the total amount of credit earned by examination, see p. 50.)

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 pp. 9-10 for details.)

Student Requests for Exceptions to Academic Policy

Students who wish 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, Registrar, 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 of #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 Iowa 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 ensure 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 Director of Affirmative Action, 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.
Program Requirements

General Education courses included in major or minor program requirements are distinguished by bold italics.

Completion of majors labeled “Extended Program” will take more than eight semesters of full-time enrollment.

Accounting
(School of Business)


Note: Students who wish to major in Accounting are considered Pre-Accounting majors until they meet the School of Business admission requirements. Students may declare their major once the admission requirements are met. Students will not be permitted to declare a double major, double minor, and/or a major and minor within the School of Business (the Economics major and minor, and the Business Communications and Business Teaching minors excepted). Pre-Accounting majors are only allowed to take lower-level (below 100) courses from the School of Business. Accounting majors must complete the School of Business admission requirements and have junior standing in order to take 100-level School of Business courses. (A copy of the admission requirements may be obtained from the Advising and Registration Office in the School of Business.) 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 the University of Northern Iowa or an institution from which transfer credit for these courses is accepted; must earn a 2.2 cumulative grade point average in 12:xxx, 13:xxx, 15:xxx, 18:xxx, and 92:xxx courses taken at University of Northern Iowa. 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:

<table>
<thead>
<tr>
<th>Accounting: 12:129; 12:130; 12:136</th>
<th>9 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives: 9 hours from the following</td>
<td>9 hours</td>
</tr>
<tr>
<td>School of Business Requirements</td>
<td>39 hours</td>
</tr>
<tr>
<td>Accounting: 12:030; 12:031.</td>
<td>12 hours</td>
</tr>
<tr>
<td>Marketing: 13:152.</td>
<td>3 hours</td>
</tr>
<tr>
<td>Information Management: 18:070 (same as 15:080).</td>
<td>2 hours</td>
</tr>
<tr>
<td>Economics: 92:053; 92:054.</td>
<td>8 hours</td>
</tr>
</tbody>
</table>

57 hours

*Students may take 15:101, 15:102 and 15:104 (all three courses) as a substitute for 15:100.

Students who wish to qualify to sit for the CPA Examination in Iowa must include 12:134 in their accounting electives.

Business Minor — Accounting

Required:

<table>
<thead>
<tr>
<th>Accounting: 12:030</th>
<th>3 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing: 13:152</td>
<td>3 hours</td>
</tr>
<tr>
<td>Management: 15:153</td>
<td>3 hours</td>
</tr>
<tr>
<td>Electives: at least 9 hours from accounting area</td>
<td>9 hours</td>
</tr>
</tbody>
</table>

18 hours

Art
(College of Humanities and Fine Arts)


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

Foundations Program

A program of visual inquiry, critical analysis, and creative discovery essential to the beginning visual arts student. Required in all art major and art minor programs:

Required:

| Art: 60:018; 60:019; 60:026; 60:027; 60:040; 60:041 | 18 hours |

B.F.A. Portfolio Admission Review Requirement
(no credit)

Required of all students seeking admission to the B.F.A. degree program. Students must apply for admission prior to the completion of 45 semester hours of art. To qualify for the review students must: 1) have a minimum cumulative GPA in Art of 2.75 and 2.50 overall; 2) complete the Foundations Program; 3) be completing in the semester of application or have completed 15 hours of Studio Distribution; 4) be enrolled in or have completed a second semester in a selected studio area (students electing a drawing emphasis must be enrolled in or have completed a third semester of drawing beyond Drawing II); 5) complete the B.F.A. Admission Application; and 6) submit a portfolio of art work for review.

Bachelor of Fine Arts Degree Program

Art Major (Extended Program)

Programs of study: ceramics, drawing, graphic design, metalwork, painting, papermaking, photography, printmaking, and sculpture.

Required: Foundations Program (requirements listed above) | 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 — 60:029; 60:037; 60:050; 60:055; 60:074.

Required: History of Art Distribution | 9 hours |

Other requirements | 8 hours |

B.F.A. Admission Review (0 hrs.) | 9 hours |

B.F.A. Seminar (2 hrs.) | 8 hours |

B.F.A. Project I (3 hrs.) | 8 hours |

B.F.A. Project II (3 hrs.) | 8 hours |

B.F.A. Exhibition (0 hrs.) | 8 hours |

Studio Electives | 33 hours |

86 hours

Students who wish to pursue the B.F.A. degree must apply for admission prior to the completion of 45 semester hours of art and must qualify for and pass the B.F.A. Portfolio Admission Review. To qualify for the review, students must: 1) have a minimum cumulative GPA in Art of 2.75 and 2.50 overall; 2) complete the Foundations Program; 3) be completing in the semester of application or have completed 15 hours of Studio Distribution; 4) be enrolled in or have completed a second semester in a selected studio area (students electing a drawing emphasis must be enrolled in or have completed a third semester of drawing beyond Drawing II); 5) complete the B.F.A. Admission Application; and 6) submit a portfolio of art work for review.

61
emphasize must be enrolled in or have completed a third semester of drawing beyond Drawing II; 5) complete the B.F.A. Admission Application; 6) submit a portfolio of art work for review.

Students may reapply for admission to the B.F.A. program.

As a graduation requirement, each B.F.A. candidate must have completed an emphasis of a minimum of 21 semester hours in any one of the following areas: ceramics, drawing (excluding Drawing I and Drawing II), graphic design, metalwork, painting, papermaking, photography, printmaking, or sculpture. Also required is the B.F.A. exhibiton.

**Bachelor of Arts Degree Programs**

**Art Major**

Required: Foundations Program (requirements listed above) ...................................................... 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 - 60:029; 60:037; 60:050; 60:055; 60:074.

Required: History of Art Distribution .................................................. 6 hours

Emphasis: students must complete an emphasis in either Studio or Art History .................................................. 9 hours

**Studio Emphasis:** 9 hours in any one of the following areas: ceramics, drawing, graphic design, metalwork, painting, papermaking, photography, printmaking, or sculpture.

**Art History Emphasis:** 9 hours of 100-level courses in art history (in addition to the 6 hours of History of Art Distribution above).

Art electives (minimum of 6 hours required; 45 total hours are required for the major) .................................................. 6 hours

45 hours

**Art Education Major - Teaching (Extended Program)**

Required: Foundations Program (requirements listed above) ...................................................... 18 hours

Required: History of Art Distribution .......................................................... 6 hours

Required Art Education .......................................................... 10 hours

Art: 60:091; 60:092; 60:193*; 60:194*.

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 - 60:029; 60:037; 60:050; 60:074.

Art electives .................................................. 6 hours

52 hours

Each art education major must complete an emphasis in either art history or a single studio area.

**Studio Emphasis:** 9 hours in any one of the following areas: ceramics, drawing, graphic design, metalwork, painting, papermaking, photography, printmaking, or sculpture.

**Art History Emphasis:** 12 hours of 100-level courses in art history.

*Completion of these courses will satisfy 24:020 of the professional education requirements.

**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.

**Biology**

**Bachelor of Science Degree Program**

- 130 semester hours

**Biology Major**

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 graduate study. In order to ensure graduation within 8 semesters students should work with advisers early in their programs, as advance planning for sequenced courses is very important.

**Required:**

- Biology: 84:051; 84:052; 84:128; 84:140; 84:157; 84:168; 84:190 .......................... 23-24 hours
- Mathematics: 80:061 .......................... 4 hours
- Computer Science: 81:070 or 81:081 .......................... 3 hours
- Chemistry: 86:048 or 86:070; 86:120; 86:121; 86:123 .......................... 12-13 hours
- Physics: 88:056 or 88:131 and 88:061 .......................... 4-5 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.

Prerequisites that may be necessary to be taken prior to courses in this program include: 80:046; 80:060; 86:044; 88:054 or 88:130 with 88:060.
-Biology

Bachelor of Arts Degree Programs
Biology Major: Plan X
This major provides a broad training in biology but allows various
emphases through choice of electives. Students wishing to select this
major to prepare themselves for graduate study in biology, botany,
zoology or other fields in the biological sciences should consult with
an adviser in their area of specialty.
Required:
Biology: 84:051 ; 84:052; 84:128; 84:140; 84:168 . . .
18 hours
Cognate .. . ..... .. .. .. .. . ........ ... .. ... .. . 21-24 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
Electives in biology (100-level or above) .. ... .. .. 13-16 hours
55 hours
Note: Aworking knowledge of algebra and trigonometry or 80:046 is
necessary.

Biology Major: Plan Y
This major offers basic preparation to students for medical,
osteopathic, dental , veterinary, optometry, podiatry and other
health-related 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 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 25-28 hours
Mathematics: 80:046 or 80:048 or 80:060 or equivalent.
Chemistry: either 86:044 and 86:048 or 86:070;
86:120; 86:121 ; 86:123.
Physics: 88:054; 88:056.
Electives in biology to be selected from the following
in consultation with adviser: 84:106; 84:108;
84:112; 84:114*; 84:117; 84:118; 84:128; 84:131;
84:132; 84:140; 84:151; 84:157; 84:183; 84:190 or
84:198 ............ .. ............. . ... . ... 19-22 hours
55 hours
*Pre-physical therapy students may substitute 84:138 for 84:114.

Biology Major - Teaching (Extended Program)
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 other courses at the secondary level.
This is an extended program requiring nine semesters, and therefore,
students planning a teachng career should contact their academic
advisers early in their program. This program serves as an excellent
base for graduate work in biology education or in science education
and is also suitable preparation for graduate-level study in the biological sciences.

Required:
Biology: 84:051; 84:052; 84:114 or 84:138; 84:122;
84:128 or 84:151 ; 84:140; 84:142; 84:168 .... . . 27-29 hours
Chemistry: either 86:044 and 86:048, or 86:070;
either 86:050 and 86:132, or 86:120 and 86:121 and
86:123 .... ... ...... .. ..... .. .. .. ... . ..... 13-16 hours
Methods . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
5 hours
Science and Science Education: 82:190; 82:196.
Biology: 84:193.
Biology electives: to be evenly divided between botanical and zoological courses and to include a minimum of 8 hours of field-oriented class work ... . 13-16 hours
61 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
Cognate courses .... . . . ...................... 13-16 hours
Chemistry: 86:044 and 86:048, or 86:070; either
86:050 and 86:132, or 86:120 and 86:121 and
86:123.
Electives from courses below . . . . . . . . . . . . . . . . . . 17-20 hours
Computer Science: 81:070.
Biology: 84:114 or 84:138; 84:140; 84:168; 84:170.
Physics: 88:054; 88:056.
55 hours

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
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 .............. . . .. .... .
Electives in biology at 100 level .. .... .. ... .. . . .

8 hours
15 hours
23 hours

Biology Minor - Teaching
Approval by the Iowa Department of Education to teach biology
with a minor requires additional teaching approval in another science
discipline or in the broad area of science.
The Biology Minor - Teaching provides for second endorsement
approval by the Iowa Department of Education and requires first
endorsement approval (major) in another science discipline or general science.
63


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 post-graduate 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 B.A. 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.

Major programs are offered by the Department of Chemistry in two baccalaureate areas: the Bachelor of Science and the Bachelor of Arts. Students considering a chemistry major should complete two courses in mathematics and physics within the first two years. Apple students and majors may substitute credit in 86:061 for this requirement.

**Bachelor of Science Degree Program**

**Chemistry Major**

Required:
- Mathematics: 80:060 and 80:061 .......................... 8 hours
- Computer Science: 81:070 or 81:081 ...................... 3 hours
- Physics: 88:054 and 88:056 or 88:130 and 88:131 .......... 8 hours
- Electives: chemistry or other sciences ..................... 6-9 hours
- 54 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.

**Bachelor of Arts Degree Programs**

**Chemistry Major**

Required:
- Mathematics: 80:060 and 80:061 .......................... 8 hours
- Physics: 88:054 and 88:056, or 88:130 and 88:131 .......... 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
- Methods:
  - Science and Science Education: 82:190; 82:196 .......... 3 hours
  - Chemistry: 86:193 ....................................... 2 hours
  - Electives: chemistry beyond 86:048 or 86:070 .......... 7-10 hours
  - 43 hours

**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:
- Accounting: 12:030; 12:031 .................................. 6 hours
- Economics: 92:024 or 92:053 ............................... 3 hours
- 54-57 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
Chemistry Minor — Teaching

Required:

Science methods:
Science and Science Education: 82:190; 82:196 .... 3 hours

Electives from the following 1-6 hours

27 hours

Communication and Theatre Arts

(College of Humanities and Fine Arts)


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

Enrollment Management Policy

(Applicable to majors in Broadcasting, Public Relations, and Communication and Theatre Arts — Liberal Arts.)

The Department of Communication and Theatre Arts has an enrollment management policy which is applicable to majors in Broadcasting, Public Relations and Communication and Theatre Arts — Liberal Arts. Admission to these majors requires a 2.5 cumulative GPA in 24 hours of General Education course work (to include 50:023 Oral Communication and 50:025 Introduction to College Writing) and a 2.5 cumulative GPA in a designated two course major component. Transfer students with an A.A. and a cumulative GPA of 2.5 will be admitted to the major. Transfers without an A.A. will be subject to the 2.5 cumulative GPA in 24 hours of General Education and the designated course component. Only students formally admitted to the major may pursue course work beyond the designated major component. A complete statement of the Communication and Theatre Arts Enrollment Management Policy and Procedures is available from the Department of Communication and Theatre Arts Office in CAC 257.

Designated Course Components:

A. Public Relations: 50:077; 66:032
B. Broadcasting: 50:018; 50:060

Communication and Theatre Arts Major

Required:

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.

Chemistry/Communication and Theatre Arts

Communication and Theatre Arts Major — Teaching

Required:
Communication and Theatre Arts — Content Core Requirements:
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
Electives: choice of 3-4 hours from 50:021;
50:137; 50:140; 50:143; 50:145; 50:151;
Journalism: 66:032 .... 3 hours
45-46 hours

Communications/Public Relations Major

The public relations major requires the completion of 61 credit hours as follows:

Required:
Accounting: 12:030 .... 3 hours
Marketing: 13:140; 13:152 .... 6 hours
Marketing: 13:171 or Communication and Theatre Arts: 50:137 or 50:165 .... 3 hours
Management: 15:153 .... 3 hours
Educational Media: 24:131 .... 3 hours
Art: 60:025 or
Industrial Technology: 33:155 .... 3-4 hours
Journalism: 66:032; 66:040 .... 6 hours
Electives to total 9-10 credit hours, based on specific interest of the student, from list below* .... 10-9 hours
Educational Media: 24:130; 24:138; 24:156.
Educational Media: 24:147 or
Industrial Technology: 33:169 or
Art: 60:032.
Communication and Theatre Arts: 50:017;
and/or 50:197; 50:183; 50:184; 50:185.
Art: 60:125.
English Language and Literature: 62:070.
66:150.

61 hours

Communications/Radio-TV Major

Required core .... 23 hours
Communication and Theatre Arts: 50:018; 50:060;
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 50:16b; 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;
Theatre Arts, which is responsible for advising students enrolled in
Broadcast Journalism Emphasis:

**Required emphasis core**
- Communication and Theatre Arts: 50:031, 50:032
- Music Techniques: 50:015
- Journalism: 66:040
- Physics: 88:018

Electives: 6 hours selected from the following list 12 hours
- Educational Media: 24:151; 24:155
- Political Science: 94:131; 94:132

Broadcast Journalism Emphasis:

**Required emphasis core**

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
- 50:174; 50:175; 50:197
- Political Science: 94:148; 94:155; 94:173

**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**


**Required Business Core**

- Accounting: 12:030
- Marketing: 13:152
- Management: 15:020; 15:153
- Economics: 92:053

Required: one of the following two emphases 12 hours

**Management Emphasis:** (Students who choose this emphasis will have an extended program.)

(Prerequisites to above courses: 12:031; 15:070 or equivalent; 92:053; 92:054; 15:133)

**Marketing and Sales Emphasis:**


Electives 7 hours

Seven hours of additional course work from
- Communication and Theatre Arts offerings with at least 3 hours from the following: 50:034; 50:123; 50:138; 50:139; 50:163; 50:183; 50:184; 50:197 (maximum of 3 hrs.)

**Theatre Arts Major**

Required:

Core requirements:

**Communication and Theatre Arts:**
- 50:021;
- 50:050; 50:052; 50:053; 50:082; 50:147;
- 50:148

One of the options below for a total of 34 hours

- Electives

**General Option:** 24 hours from theatre courses.

**Acting Option:** (25 hours)

Physical Education: 42:035
Music, Applied: 54:049

**Design and Technology Option:** (24 hours)


**Music Theatre Major**

(Bachelor of Fine Arts interdisciplinary degree program — requirements listed under the School of Music, see page 91.)

**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: 50:133; 50:163 6 hours
- English Language and Literature: 62:105; 62:105 6 hours

Required: six (6) hours from one of three emphases 18 hours

**Emphases —**

**Business:**
- Information Management: 18:113; 18:114

**Communications:**
- Communication and Theatre Arts: 50:183; 50:184; 50:185

**English:**
- Two of the following —

**Communication and Theatre Arts Minor**

Required:

Elective courses* in Communication and Theatre
- Arts 18 hours


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 (50:0xx) 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

Students shall complete the core (15 credit hours) and either option A or B (10 credit hours) for a total of 25 hours.


Option A or B: Communication


Option B: Theatre


Communication and Theatre Arts Minor (K-6) — Teaching

Required:

Communication and Theatre Arts: 50:030; 50:035; 50:102 or 50:128; 50:103; 50:114 or 50:134; 50:129 (50:031 may be substituted with permission); 50:130; 50:16a

Communication and Theatre Arts — Interpretive Communication Minor

Required:

Communication and Theatre Arts: 50:031 (Must be taken prior to the following interpretation courses.)

15 hours from the following courses; program to be approved by the interpretation faculty:

50:118; 50:123; 50:124
50:034; 50:115; 50:137

25 hours

Communicative Disorders


Speech-Language Pathology Major

Required:


Measurement and Research: 25:180

50 hours

Graduate adviser, in consultation with the student, will determine how such requirements will be remediated.

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) 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)


Early Childhood Education Major — Teaching

This major leads to certification for teaching young children from birth through kindergarten. The student will complete the General Education requirements, the Professional Education Core, the specified major requirements, plus electives to complete a minimum of 130 hours. The prescribed program is as follows:

Required:

Educational Psychology: 20:109
Reading and Language Arts: 23:044; 23:115; 23:116
Home Economics: 31:030
Five hours in related methods courses (from courses listed under elementary education major)

30 hours

A 2.50 grade index in all course work at the University of Northern Iowa and, also, a 2.50 GPA 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 in major course work.

Students seeking dual endorsement, Early Childhood Education with Elementary, may do so by completing an Extended Program which includes the following additional course work:

Elementary, Early Childhood, and Middle School/ Junior High: 21:123 or Music: 52:102 or Art: 60:090
Health: 41:135 or Physical Education: 42:045
Mathematics: 60:030; 80:134

22-23 hours
Elementary Education Major — Teaching (K-6 General Classroom Teacher) (Extended Program)

The student will complete the General Education requirements, the noted Professional Education Core, the major requirements, a 24-hour area of concentration or an endorsement minor, and electives to complete a minimum of 130 hours. The prescribed program is as follows:

I. Professional Core — Elementary Education

Required:
- Special Education: 22:150 .................................. 2 hours
- Educational Media: 24:031* ................................ 2-3 hours

Level I

- Educational Psychology: 20:017; 20:030 .................. 4 hours

Level II (Before enrolling in Level II, the student must be officially admitted into the Teacher Education Program.)

- Educational Psychology: 20:018; 20:040 .............. 4 hours
- Measurement and Research: 25:050 .................... 2 hours

Level III

- Education, Interdepartmental: 19:070 ............. 3 hours
- Social Foundations: 26:119 ................................ 3 hours

II. Elementary Education Major Requirements:

Required:
- Elementary, Early Childhood, and Middle School/Junior High: 21:120 or 21:122; 21:150 or 21:152; 21:161; 21:164 ........................................ 12 hours
- Elementary, Early Childhood, and Middle School/Junior High: 21:123 or
- Music: 52:102 or
- Art: 60:090 .................................................. 2-3 hours
- Reading and Language Arts: 23:044; 23:115; 23:116 ........................................ 9 hours
- Health: 41:135 or
- Physical Education: 42:045 ................................ 2 hours
- Mathematics: 80:030; 80:134 ................................ 6 hours
- Electives: Educational Psychology: 20:100 or Curriculum and Instruction: electives ............... 1-2 hours

**Students must select 24:031 in place of 24:020 in the Professional Education Core unless the computer requirement is addressed in a minor subject field or elective course. A 2.50 grade index on all work at the University of Northern Iowa and, also, a 2.50 GPA 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 enrollment in student teaching. Students should plan their course work so that the following courses are completed after Level II of the professional sequence and prior to student teaching.


III. Area of Concentration: Students will include either a 24-hour area of concentration or endorsement minor. The student may choose from one of the following areas of concentration or approved university minors. In special circumstances a 24-hour emphasis may be approved by the head of the Department of Curriculum and Instruction in an area not listed.

Art Minor (K-6) — Teaching

Required:
- Art: 60:018; 60:019; 60:026; 60:027; 60:040; 60:041; 60:091; 60:092 .................. 23 hours
- Art elective: may include 60:002 or 60:004 ........................... 6 hours

Basic Science Minor (K-6) — Teaching

Required:
- Science and Science Education: 82:031; 82:032 ........ 8 hours
- One option each from three of the following areas:
  - Chemistry: 86:010.
  - Earth Science: 87:010 and 87:011; or 87:031.
  - Physics: 88:011.
- Elementary, Early Childhood, and Middle School/Junior High: 21:141 or
- Science and Science Education: 82:194 .................. 2-3 hours
- Elementary, Early Childhood, and Middle School/Junior High: 21:142 or
- Science and Science Education: 82:130 .................. 3 hours

Communication and Theatre Arts Minor (K-6) — Teaching

Required:

Early Childhood Minor (K-6) — Teaching

Required:
- Educational Psychology: 20:109 .................. 3 hours
- Home Economics: 31:030 .................. 2 hours
- Electives in early childhood or elementary education methods planned in consultation with adviser .................. 8 hours

Elementary School Media Specialist Minor (K-6) — Teaching

Required:
- Educational Media: 24:031; 24:139 .................. 6 hours
- Library Science: 35:113; 35:115; 35:121; 35:132 .................. 12 hours
- Electives: (24:xxx or 35:xxx prefix media course work — excluding 35:010 or 35:112) .................. 6 hours

To meet Department of Education endorsement as an Elementary School Media Specialist K-6, in addition, 8 hours of graduate course work are required — Library Science: 35:225; 35:250; 35:290.

English/Language Arts Minor (K-6) — Teaching

Required:
- Reading and Language Arts: 23:111; 23:113; 23:132; 23:140; 23:144; 23:193 .................. 16 hours
- Communication and Theatre Arts: 50:129 or 50:130 .................. 3 hours
- English Language and Literature: 62:005; 62:052 .................. 6 hours

Health Education Minor (K-6) — Teaching

Required .................. 24 hours

(The Health Education Minor (K-6) is under the jurisdiction of the School of Health, Physical Education and Recreation. Requirements are listed on page 75.)
### History Minor (K-6) — Teaching

**Required:**
- Elementary, Early Childhood, and Middle School/ Junior High: 21:143 .......................... 3 hours
- History: 96:014; 96:015; 96:130; 3 hours of European history; 3 hours of Non-Western history .................................................. 15 hours
- History electives .................................. 6 hours
- 24 hours

### Modern Languages Minor (K-6) — Teaching

**Required:**
(These emphases are under the jurisdiction of the Department of Modern Languages and requirements are on pages 88-89. Minors can be selected from French, German, Russian, and Spanish.)

**Music Minor (K-6) — Teaching**

**Required:**
- Music Organizations and Ensembles: 53:xxx .......................... 2 hours
- Applied Music: 54:xxx ............................................. 4 hours
- Music Techniques: 56:017 or 56:018 .................................. 2 hours
- Music Education and Methods: 57:050; 57:141 .................................. 5 hours
- Music Theory: 58:010; 58:011; 58:012; 58:015; 58:016 ................... 10 hours
- Music Literature: 59:005 .......................................... 2 hours
- Music Techniques/Music Education and Methods: elective from 56:xxx or 57:xxx ........................................ 2 hours
- 27 hours

### Physical Education Minor (K-6) — Teaching

**Required:**
(The K-6 Physical Education Minor is under the jurisdiction of the School of Health, Physical Education and Recreation. Requirements are listed on page 76.)

**Reading Education Minor (K-6) — Teaching**

**Required:**
- Reading and Language Arts: 23:111; 23:113; 23:115; 23:132; 23:140; 23:147; 23:192; 23:193 (1 hr.) .... 22 hours

### Social Studies Minor (K-6) — Teaching

**Required:**
- Elementary, Early Childhood, and Middle School/ Junior High: 21:143 .......................... 3 hours
- Economics: 92:053 ............................................. 3 hours
- Political Science: 94:014 ...................................... 3 hours
- History: 96:014 or 96:015 ...................................... 3 hours
- Geography: 97:010 or 97:025 ................................... 3 hours
- Sociology: 98:038 ............................................. 3 hours
- Six hours from at least one area: Economics, American History, American Politics, Geography, Sociology .......................................................... 6 hours
- 24 hours

### Special Education Minor — Teaching

**Required:**
(These emphases are under the jurisdiction of the Department of Special Education, and requirements are given on page 100. K-6 emphases can be selected from: Behavioral Disorders, Learning Disabilities, Mental Disabilities Mild/Moderate, and Multi-Categorical Resource.)

### Media Minor

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

### Secondary Reading Minor — Teaching

Completion of this program qualifies a secondary teaching major to receive certification endorsement as a reading teacher. **Required:**
- Reading and Language Arts: 23:130*; 23:132; 23:140; 23:147; 23:192; 23:193 ........................................ 18 hours
- English Language and Literature: 62:034*; 62:165* ........................................ 5-6 hours
- Linguistics: 63:130* ........................................ 3 hours
- One of the following courses:* English Language and Literature: 62:103; 62:104; 62:193 .......................... 3 hours
- 29-30 hours

*Course work required on current English teaching major.

### Middle School/Junior High School Area of Emphasis

**Requirement:** The Middle School/Junior High School Emphasis is designed to provide either the secondary education major or the elementary education major with advanced competency in working with pre- and early-adolescent learners. With the course work in this special emphasis area and the endorsement obtained by completing the major, the student will receive greater depth of preparation for teaching students in the middle grades (5-8). This emphasis must accompany an appropriate undergraduate major.

The student will complete the following courses for the emphasis:

**Required:**
- Educational Psychology: 20:116 ...................................... 2 hours
- Elementary, Early Childhood, and Middle School/ Junior High: 21:122; 21:135; 21:150 ...................................... 9 hours
- Reading and Language Arts: 23:132 ...................................... 3 hours
- 14 hours

The student must include an academic minor (or major) as part of the overall program in order to be eligible for assignment in the middle school. Elementary education majors should consult with their advisers regarding the appropriate sections of 21:122 and 21:150 to include as part of the elementary education major.

### Safety Education

**Safety Education Major — Teaching**

**Required:**
- 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)

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 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. The B.A. Earth Science Major — Teaching is designed to prepare secondary earth science teachers. A B.A. earth science program is available as a liberal arts major too.

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 hrs.:) Summer Field Course (6 hrs.)* ............. 43 hours

Required Cognate Areas ................................. 24-28 hours
   Mathematics/Computer Science: 80:072 or 81:070
   or 81:081.
   Chemistry: either 86:044 and 86:048, or 86:070.
   Physics: either 88:054 and 88:056 and one 100-level
cognate elective, or 88:130 and 88:131.

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.

Earth Science Major

Required:
   Earth Science: 87:010; 87:011; 87:021; 87:031;
   87:035
   Electives* selected from earth science, biology,
   chemistry, geography, physics, science ......... 5 hours

*Electives from outside earth science must be approved by the head of the Department of Earth Science.

Earth Science Major—Teaching

Required ...................................................... 33-36 hours
   Science and Science Education: 82:190; 82:194;
   82:196.
   Chemistry: 86:044 and 86:048, or 86:070.
   Earth Science: 87:010; 87:011; 87:021; 87:031;
   87:035.
   Physics: 88:054; 88:056.

Electives in earth science: 100-level courses
   (excluding 87:189) ........................................ 11 hours

44-47 hours

Geology Major

Required ...................................................... 41-44 hours
   Mathematics: 80:046 or 80:060.
   Chemistry: either 86:044 and 86:048 or 86:070.
   Earth Science: 87:031; 87:035; 87:129; 87:130;
   87:131; 87:135; 87:136.
   Physics: either 88:054 and 88:056 or 88:130 and
   88:131.
   Summer Field Course* .................................. 6 hours
   Electives in geology (100-level) ....................... 4 hours

51-54 hours

*A summer field course requirement to be met by credit earned at
field camp approved by the department.


Astronomy Minor

Required ...................................................... 28-30 hours
   Earth Science: 87:010; 87:011; 87:110; 87:150;
   87:154.

*Not required if student has taken 88:054.
**Not required if student has taken 88:056.

Earth Science Minor

Required: courses in earth science ........................ 20 hours
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.

Also required: a teaching major or minor in biology, chemistry, physics, or science.
Completion of this minor will satisfy the requirements of the Iowa Department of Education for Earth Science approval (effective October 1, 1988) only if the student has completed 30 semester hours in the broad area of science.

Economics
(School of Business)


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 University of Northern Iowa 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:xxx courses taken at University of Northern Iowa.

Economics Major

Required:
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

No minor is required.

Economics Minor — Liberal Arts

Required:
Economics: 92:053; 92:054; 92:103; 92:104
Electives in economics (92:103 and 92:104 recommended to be taken before other advanced courses in economics) 6 hours

Note: 92:053 and 92:054 are prerequisites for all 100(g) economics courses.

Economics Minor — Teaching

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

Note: 92:053 and 92:054 are prerequisites for all 100(g) economics courses.

Educational Administration and Counseling
(College of Education)


There are no undergraduate majors or minors in the Department of Educational Administration and Counseling. See the graduate section of this catalog for programs within this department's jurisdiction.

Educational Psychology and Foundations
(College of Education)


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

Program Certificates

For information on one of the following Program Certificates, contact the department office or the Registrar's Office.
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

English Language and Literature
(College of Humanities and Fine Arts)


English Major

Required:

One of the following courses 3 hours

One of the following courses 3 hours
Linguistics: 63:125, 63:130, or 63:143.

Electives in English language, literature, or writing to include at least 12 hours of 100-level courses in literature 18 hours

42 hours


**English Major — Teaching**

**Required:**

- 27-28 hours

One of the following courses  

- Linguistics: 63:125 or 63:130  
- Communication and Theatre Arts: 50:023
- 3 hours

One of the following courses  

- Reading: 23:130  
- Electives in English language, literature, or writing to include at least 3 hours of 100-level courses in literature  
- 6 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 Language and Literature: 62:034  
- 3 hours

Two of the following four courses  

- One of the following four courses  
- 6 hours

Cognate electives — minimum of 6 hours from the following  

- Psychology: 40:118.
- Communicative Disorders: 51:106.
- Computer Science: 81:081.  
- 6 hours

**Note:** 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 (TESOL) Major — Teaching**

**Required:**

- English Language and Literature: 62:034  
- 3 hours

One of the following four courses:  

- 62:043; 62:051; 62:052  
- 3 hours

One of the following four courses:  

- 3 hours

- 27 hours

Electives in literature or linguistics  

- 6 hours

**Note:** International students must have achieved a TOEFL score of 600 or the equivalent in order to demonstrate their proficiency in English.

- 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.

**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:**

- 6 hours

- English Language and Literature: 62:104; 62:105  
- 6 hours

- Required: six (6) hours from one of three emphases below  
- 6 hours

**Emphases —**

**Business**

- Information Management: 18:113; 18:114.

**Communications**


**English**

Two of the following —


**English Minor**

**Required:**

- 18 hours

- Linguistics: 63:125 or 63:130  
- 3 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.
English Minor — Teaching
Required:
Reading: 23:130 ........................................ 3 hours
Communication and Theatre Arts: 50:023 ........................................ 3 hours
Linguistics: 63:130 ........................................ 3 hours

A minimum cumulative grade point average of 2.4 in courses taken to complete this minor is required.

English Linguistics Minor
Required:

Journalism Minor
Required:
Electives: at least 6 hours from the following courses ........................................ 6 hours
Educational Media: 24:147.

Teaching English to Speakers of Other Languages (TESOL) Minor
Required:
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 Language and Literature/Journalism:
Linguistics: 63:125 or 63:130; 63:145; 63:154;
63:156; 63:192.
Languages: 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

Emphases —

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
(Extended Program)

Required:

English Language and Literature: 62:034; one of
the following four courses: 62:103; 62:104;
62:105; 62:193 ................................................................. 6 hours

Linguistics: 63:125 or 63:130; 63:135; 63:154;
63:160; 63:165; 63:192; 63:194; 63:196 ............. 24 hours

30 hours from one of the language emphases
below .......................................................... 30 hours

Emphases —

French:
Languages: 70:190.
French: 72:011; 72:051 (3 hrs.); 72:061 (2 hrs.);
and at least one French literature course.

German:
Languages: 70:190.
German: 74:011 (5 hrs.) 74:052 (3 hrs.); 74:062 (2
hrs.); 74:071; 74:107; 74:123; 74:180;
and electives in German more advanced than
74:002 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 more advanced
than 78:002 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:

English Language and Literature: 62:161; a 100-
level course in English literature ........... 6 hours
Electives: (see below*) .......................... 12 hours

*For Foreign Language Majors —
Languages: 70:180.
Electives in 100-level foreign language literature
courses (6 hours).
English literature at the 100 level (excluding

*For Non-Foreign Language Majors —
Languages: 70:180.
French: 72:070 or 72:072; or
German: 74:070 or 74:071; or
Spanish: 78:071 or 78:072.
Electives in 100-level foreign language literature
courses (6 hours).

A reading knowledge of one foreign language is required.

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

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: 97:010 or 97:025; 97:031; 97:060;
97:109; 97:180 ................................................................. 16 hours
97:105 or 97:107 or 97:108 or 97:146 or 97:162; 97:110 or 97:112 or 97:115; 97:120 or 97:130 or 97:132 or 97:170 or 97:185; 97:140 or 97:150; Electives in geography ................................................ 37 hours

Electives in geography ................................................ 9 hours

Geography Major — Teaching

Required:

Social Science: 90:190 .................................................. 3 hours
Geography: 97:010 or 97:025; 97:031; 97:060;
97:109; 97:180 ................................................................. 16 hours
97:105 or 97:107 or 97:108 or 97:146 or 97:162; 97:110 or 97:112 or 97:115; 97:120 or 97:130 or 97:132 or 97:170 or 97:185; 97:140 or 97:150; Electives in geography ................................................ 37 hours

Electives in geography ................................................ 6 hours
Geography Minor — Teaching and Liberal Arts

Required:
- Geography: 97:010 or 97:025 3 hours
- 97:031 4 hours
- 97:140 or 97:150 3 hours
- Electives in geography 14 hours
- 97:031 4 hours
- 97:140 or 97:150 3 hours
- Electives in geography 14 hours
- 97:010 3 hours
- 97:025 4 hours
- 97:031 3 hours
- 97:140 or 97:150 4 hours
- Electives in geography 24 hours

Program Certificate

For information on the following Program Certificate, contact the department office or the Registrar's Office.

Cartography Certificate

School of Health, Physical Education, and Recreation

(College of Education)


Community Health Education Major

Required 48-54 hours
- Counseling: 29:105.
- Library Science: 35:112.
- Health: 41:060; 41:153; 41:156; 41:158; 41:160; 41:163; 41:164; 41:168; 41:176.
- Biology: 84:031.
- Political Science: 94:132.
- Electives: to be chosen from the following list 11-17 hours
- 65 hours

Accounting: 12:030.
- Educational Psychology: 20:138; 20:142.
- Health: 41:010; 41:015; 41:020; 41:072; 41:120; 41:146; 41:162.
- Philosophy: 65:142.
- Biology: 84:032.

Health Education Major — Teaching

Required 37 hours
- Educational Psychology: 20:118.
- Psychology: 40:170.
- Health: 41:010 (1 hr.); 41:072 (1 hr.); 41:140; 41:144; 41:153; 41:160; 41:163; 41:164; 41:176.
- Biology: 84:031.
- Electives — a minimum of five (5) hours from the following list 5 hours
- 42 hours

Educational Psychology: 20:116; 20:140; 20:142; 20:151.
- Safety Education: 30:030.
- Health: 41:020; 41:060; 41:120; 41:146; 41:162.
- Biology: 84:033.

Athletic Training Minor

Required 27 hours
- Health: 41:010; 41:015; 41:175; 41:182; 41:183; 41:184; 41:187 (4 hrs.).
- Biology: 84:031.

Community Health Education Minor

Required
- Health: 41:060; 41:153; 41:156; 41:158; 41:160; 41:163; 41:164; 41:168; 41:176.
- Biology: 84:031.
- Political Science: 94:132.
- Electives in health education to be chosen from the following list 5 hours
- 22 hours

Accounting: 12:030.
- Educational Psychology: 20:138; 20:142.
- Health: 41:010; 41:015; 41:020; 41:072; 41:120; 41:146; 41:162.
- Philosophy: 65:142.
- Biology: 84:031; 84:032.

Health Education Minor — Teaching

Required 24 hours
- Educational Psychology: 20:118.
- Psychology: 40:170.
- Health: 41:010 (1 hr.); 41:072 (1 hr.); 41:140; 41:144; 41:153; 41:160; 41:164.
Physical Education Major — Teaching

Completion of this program qualifies the student to be recommended for endorsements for Physical Education K-6, Physical Education 7-12, and Coaching K-12.

Required ........................................... 33 hours
Health: 41:010; 41:072; 41:175.

Required advanced skill and coaching theory .... 2-3 hours

Required fundamental physical activities in the following** .................................. 8 hours
Physical Education: 42:011 (1 hr.); 42:013 (2 hrs.); 42:014 (1 hr.); 42:015 (3 hrs.); 42:016 (1 hr.).
Required: an emphasis in one of the following areas for a minimum of six hours ............... 6 hours
49-50 hours

Emphases —

Aquatics:
Physical Education: 42:001 (Water Safety Instruction); 42:109; 42:120.
Electives from 42:001 (Canoeing, Diving, Skin Scuba, Synchronised Swimming, Water Polo); 42:040 or 42:168; 42:157.

Coaching:
Physical Education: 43:122; 43:127.

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

Elementary:
Physical Education: 42:040.
Electives from:
Elementary, Early Childhood, and Middle School/ Junior High: 21:152.

Adapted:
Special Education: 22:050.

*Students with a major in Physical Education — Teaching will substitute 42:152 for 22:150 and 42:174 for 25:050 in the Professional Education Program. Students seeking endorsements in areas other than physical education and coaching will be required to complete 22:150.

**In addition, students completing a major in physical education are required to select a designated section of 44:010 (Personal Wellness) in the General Education Program.

Coaching Minor

Students who complete this program and a teaching major will qualify for the Department of Education coaching endorsement. The coaching endorsement is for grades K-12. However, this program does not qualify students to teach physical education at any level.

Students who complete this program and not a teaching major will qualify for the Department of Education coaching authorization.

Required:
Educational Psychology: 20:030 .................................................. 3 hour
Health: 41:175 ................................................................. 2 hour
18 hour
17 hour

Note: Students in teaching majors will complete 20:030 within the Professional Education Program. 42:118 (Practicum) may be completed during student teaching.

Dance Minor

Required activities ............................................................... 6 hours
Physical Education: 42:001 (Ballet); 42:001 (Jazz Dance); 42:001 (Social Dance); 42:001 (Modern Dance); 42:001 (Clog Dance); 42:001 (Folk and Square Dance) or 42:032.

Required ................................................................. 7 hour
Physical Education: 42:034; 42:032 or equivalent; 42:185 (1-2 hrs.) or 42:198 (1-2 hrs.).
Electives in dance from the following ........................................... 4 hour
Electives: selected to complement student's interest and with approval of dance minor adviser from the following areas: Art, Communication and Theatre Arts, Educational Media, Health, Home Economics, Humanities, Music, Physical Education, Recreation. Courses from a student's major may not be included .................................................. 4 hour
21 hour

Physical Education Minor — Elementary Teaching

Required ................................................................. 17 hours
Health: 41:010.

Required physical activities .................................................. 7 hour
Electives from the following .................................................. 2-3 hour
Educational Psychology: 20:100 or 20:151.
Health: 41:072.

26-27 hour
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 University of Northern Iowa grade point average and a 2.25 grade point average in 43:xxx courses to be eligible to register for 43:184, 43:187, and 43:189. Recreation majors should note other prerequisites for 43:187.

Required

- Accounting: 12:030.
- Physical Education: 42:120.

Electives: 12 hours from one of the nine areas listed below.

Aquatics —
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); 43:112.

Camp —
Electives — 5 hours from:
- Physical Education: 42:001 (archery, backpacking, canoeing, lifesaving, WSI, scuba); 42:045.
- Recreation: 43:142.
- Art: 60:055.
- Science and Science Education: 82:132.

Dance —
Electives — 6 hours from:
- Physical Education: 42:001 (Dance: aerobic, ballet, folk, modern, social, square); 42:013; 42:124.

Fitness —
Electives: 4 hours from —
- Health/Physical Education/Recreation: 41:972; 41:172; 42:012; 42:001 (aerobic dance, weight lifting, conditioning); 43:165.

Music —
Music: 52:102; 53:xxx (Music Organizations and Ensembles — 1 hr.); 54:Nxx (Applied Music for the Non-Music Major — 1 hr.).
Electives: 8 hours from —
- Music Techniques/Music Education and Methods: 56:110; 57:050; 57:141; and others in consultation with academic adviser.

Sports —
Electives: 3 hours from —

Theatre —
Electives: 6 hours from —

Youth Agency Administration —
Recreation: 43:150; 43:151; 43:152; 43:153; 3 credit hours in one of the above eight skill areas.
Note: 43:120 is not required of students in this elective area.

Therapeutic 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 University of Northern Iowa grade point average and a 2.25 grade point average in 43:xxx courses to be eligible to register for 43:184, 43:187, 43:189. Recreation majors should note other prerequisites for 43:187.

Required


Required: 11-12 hours

- Psychology: 40:008.
- Physical Education: 42:050.
- One course from categories 1, 3 or 5 below.
- Electives: 6-7 hours from any other courses listed below.

Electives — 6-7 hours from any other courses listed below.

1. Sociology:
- Social Work: 45:121 (or 98:121); 45:143; 45:171; 45:172; 45:173; 45:174; 45:175.

2. Psychology:
- Educational Psychology: 20:140.

3. Special Education:

4. Human Services:
- Health: 41:120; 41:146.
- Philosophy: 65:142.
5. Adapted Physical Education:

6. Physical Education:

History

(College of Social and Behavioral Sciences)

Note: 96:070 may not 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.

Can only 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

- Philosophy: 65:101 or 65:103 or 65:104.
- 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: Portugal, for students in Portuguese) or 96:186 (Studies in History: Spain, for students in Spanish) or 96:165 (for students with an emphasis in English history).
- 9 hours of electives in history, political science, economics or geography — approved by adviser (6 hours outside of history).

Foreign Language component*

- 22 hours beyond first-year French, German, Portuguese, Russian or Spanish, to include:
  - or
  - or
  - Russian: 77:101; 77:102; 77:141.
  - or
  - Spanish: 78:071; 78:101; 78:123.
  - or

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 Portuguese and Russian. Required for students emphasizing English history and language: one summer's study abroad in the British Isles.

History Major

Required:
- Humanities: 68:021 or 68:022 (if both courses are not taken for General Education) 0-4 hours
- History: 96:010 (this course must be taken immediately after major is declared); 96:014; 96:015; 96:054; 96:055; 96:193 17 hours
- Electives in history (to include 3 hours of non-Western history) 15 hours
- Electives from at least two related fields approved by the Department of History 9 hours

41-45 hours

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 24 hours (to include at least 12 hours of European history and 3 hours of non-Western history and a minimum of 9 hours of United States history) 24 hours

38-42 hours

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:
- Social Science: 90:190 (unless already taken in major) 0-3 hours
- History: 96:014 and 96:015 for teaching endorsement in American history; or 96:054 and 96:055 for teaching endorsement in world history 6 hours
- Electives in history: (for teaching endorsement in American history, students must take an additional 18 hours in United States history; for teaching endorsement in world history, students must take an additional 18 hours in European and non-Western history) 18 hours

24-27 hours

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

*With permission, students emphasizing the British Isles may substitute Gaelic, Old or Middle English for this requirement.
Home Economics
(College of Social and Behavioral Sciences)

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

Bachelor of Science Degree Program
- 130 semester hours

Home Economics — Dietetics Major
Required:
Home Economics: 31:035; 31:037; 31:038; 31:052; 31:149; 31:180; 31:193 .................. 36 hours
Biology: 84:033; 84:051; 84:052; 84:138 ................ 15 hours
Chemistry: 86:044 and 86:048, or 86:070; 86:120; 86:123; 86:154 ................ 15-18 hours
Management: 15:153 .................. 3 hours

The Home Economics — Dietetics Major is approved by the American Dietetic Association.

Planning for this major should be done with the help of the major adviser and should be consistent with the guidelines of the American Dietetic Association. 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 and/or anthropology, statistics, computer science, economics and business administration. A Bachelor of Science degree will be awarded upon completion of this major.

Bachelor of Arts Degree Programs
- 124 semester hours

Home Economics Major — Teaching
Required:
Home Economics: 31:010; 31:015; 31:018; 31:030; 31:038; 31:039; 31:062; 31:065; 31:069; 31:070; 31:110; 31:150; 31:172; 31:177; 31:190; 31:193 .................. 43 hours
Chemistry: 86:010 or 86:012 .................. 3-4 hours
Physics: 88:012 .................. 46-47 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.

Home Economics — Design and Human Environment Major
Required:
Home Economics: 31:030; 31:052; 31:061; 31:063; 31:064; 31:066; 31:067; 31:068; 31:070; 31:110; 31:125; 31:126; 31:127; 31:164; 31:184 (2 hrs.);
31:193; 31:195 .................. 50 hours
One of the following three emphases for a total of

Emphases:
1. Art —
Art: 60:026; 60:041; six hours from 60:018, 60:025, 60:027, 60:032, 60:080.
2. Behavioral Sciences —
Psychology: 40:008; 40:175.
Six hours from —
Home Economics: 31:065.
Geography: 97:010; 97:130.
Sociology: 98:080.
3. Business —
Management: 15:080.
Six hours from —
Accounting: 12:030.
Management: 15:153.

Home Economics — Family Services Major
Required:
31:195 .................. 42 hours
Electives: 100-level department-approved courses in areas such as gerontology, family life education, human relationships, or adult education .................. 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:
31:195 .................. 32 hours
Eight hours from the following: 31:111; 31:112; 31:113; 31:114; 31:116; 31:117; 31:119;
31:184; 31:199 .................. 8 hours
One of the two options below for a total of

55 hours
Fashion Merchandising Option —
Required:
Economics: 92:024 or 92:053.
Nine hours from the following:
Accounting: 12:030.
Management: 15:153.

Fashion Promotion Option —
Required:
Journalism: 66:040.
Six hours from:
Educational Media: 24:131 or
Journalism: 66:141.
Communication and Theatre Arts: 50:034 or
Journalism: 66:140.
Communication and Theatre Arts: 50:183 or
*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; 31:142; 31:144; 31:145; 31:146; 31:193; 31:195
Biology: 84:033
Chemistry: 86:061; 86:063
One of the following two emphases for a total of
66 hours

Emphases:
Business Emphasis —
Required:
Accounting: 12:030 or
Management: 15:080.
One of the following courses:
Accounting: 12:030 or
Marketing: 13:140 or
Management: 15:153.

Business Communication Emphasis —
Required:
Management: 15:153.
Information Management: 18:113.

Vocational Home Economics Major — Teaching
(Extended Program)
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
Biology: 84:033
Chemistry: 86:062; 86:063

Also required: 400 hours of student-initiated and department-approved 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 Iowa Department of Education endorsement for Pre-Kindergarten/Kindergarten teaching by completing an additional 31 hours (see Early Childhood Education Major).

This major may require four years plus one summer to complete.

Family Life Education Minor
Required:
Home Economics: 31:051; 31:052; 31:055; 31:070; 31:150 or 31:153; 31:155; 31:157
*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; 31:052; 31:065;
31:070
Electives in home economics
6 hours
66 hours

Industrial Technology
College of Natural Sciences

Bachelor of Technology Degree Programs
— 130 semester hours

Construction Major
Required:
Accounting: 12:030; 12:031
Marketing: 13:149; 13:152
Mathematics: 80:046
Chemistry: 86:020
Physics: 88:054; 88:056
Economics: 92:053

84 hours
Energy and Power Technology Major

Required ........................................ 74-78 hours
Accounting: 12:030.
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.

Bachelor of Arts Degree Programs
— 124 semester hours

General Industry and Technology Major

Required ........................................ 47-48 hours
Management: 15:153.
Industrial Technology: 33:011; 33:018; 33:022;
   33:036; 33:114; 33:172; 33:187; 33:196.
Mathematics: 80:046 or 80:072.
Chemistry: 86:020.**
Physics: 88:052.**
Electives in industrial technology chosen from the
   following: 33:024; 33:025; 33:038; 33:050; 33:119;
   33:143 (2 hrs.); 33:144 (2 hrs.); 33:145; 33:155;
   33:169 ........................................ 12 hours
   59-60 hours
   86:020 is not required for students completing 86:044 and 86:048.
   **88:052 is not required for students completing 88:054 and 88:056.

Graphic Communications Major

Required: Mathematics and Science .................. 12 hours
   Mathematics: 80:046.
   Chemistry: 86:010.
   Physics: 88:052.
Business and Management .......................... 19 hours
   Management: 15:153.
   Industrial Technology: 33:179; 33:187; 33:194;
   33:196.
   English Language and Literature: 62:105.
   Technical ................................... 32 hours
   Industrial Technology: 33:020; 33:022; 33:036;
   33:117; 33:118; 33:150; 33:155; 33:158;
   33:169 ....................................... 63 hours

Technology Education Major — Teaching

Required: Mathematics — Science .................. 8 hours
   Mathematics: 80:040.
   Technical courses required ................... 24 hours
   Industrial Technology: 33:011; 33:018; 33:022;
   33:036; 33:114; 33:178.
   Technical electives .......................... 10 hours
   Industrial Technology: 33:019; 33:120*; 33:189;
   33:190; 33:195. ............................. 54 hours
   *A minimum grade of C is required in 33:120 and 33:190 prior to
     student teaching.
   Note: Technology Education majors will be waived from 24:020 of
     the Professional Education Requirements. A student changing
     majors from Technology Education would be required to complete 24:020.

General Industry and Technology Minor

Required:
   Industrial Technology: 33:011; 33:022; 33:036;
   33:196 .................................... 18 hours
   Electives in Industrial Technology .......... 6 hours
   24 hours
Graphic Communications Minor


24 hours

Technology Education Minor — Teaching

Required:

31 hours

Information Management

(School of Business)


Note: Students who wish to major in Business Teaching or Office Information Systems are considered Pre-Business Teaching majors or Pre-Office Information Systems majors until they meet the School of Business admission requirements. Students may declare their major once the admission requirements are met. Students will not be permitted to declare a double major, double minor, and/or a major and minor within the School of Business (the Economics major and minor, and the Business Communications and Business Teaching minors excepted). Pre-Business Teaching majors and Pre-Office Information Systems majors are only allowed to take lower-level (below 100) courses from the School of Business. Business Teaching majors and Office Information Systems majors must complete the School of Business admission requirements and have junior standing in order to take 100-level School of Business courses. (A copy of the admission requirements may be obtained from the Advising and Registration Office in the School of Business.) To graduate with a major in Business Teaching or Office Information Systems from the School of Business, a student must complete 92:053, 92:054, 12:030, 12:031, 15:020, 15:021, 15:101, 15:102, and 15:151 with at least a C- in each course whether taken at University of Northern Iowa or an institution from which transfer credit for these courses is accepted; must earn a 2.2 cumulative grade point average at University of Northern Iowa (2.5 for teaching majors); and must earn an overall 2.2 grade point average in 12:xxx, 13:xxx, 15:xxx, 18:xxx, and 92:xxx courses taken at University of Northern Iowa.

Business Teaching Major (Extended Major)

Information Management: 18:070.
Economics: 92:053; 92:054.

Marketing: 13:140.

58 hours

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 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 43 and 46, depending upon the student's major and/or emphasis. This will expand the student's program beyond the normal eight semesters. Specific certification requirements and information about this expanded career option may be obtained from the Department of Information Management office.

Office Information Systems Major

Management: 13:152.
Economics: 92:053; 92:054.

Economics: 92:053.

57 hours

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

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: six (6) hours from one of three emphases below. 12 hours

Emphases:

English — Two of the following courses:


58 hours

Business Teaching Minor

Economics: 92:053.

A student desiring a minor in Business Teaching must have the minor program approved by the Business Teaching adviser.

Other Certification Options:
Additional vocational certification is available in office education, marketing education, and shorthand.
Program Certificate
For information on the following Program Certificate, contact the department office or the Registrar’s Office.

Training and Development in Business Certificate

Library Science
(College of Education)
E. Martin, Head. L. Hiland.

Library Science Minor
Required .............................................. 17 hours
Library Science: 35:110; 35:113; 35:118; 35:121;
35:132 or 35:134; 35:250.
Electives ........................................... 2-4 hours
19-21 hours

Library Science Minor — Teaching
Required .............................................. 26 hours
Library Science: 35:113; 35:115; 35:121; 35:132 or
35:134; 35:225; 35:250; 35:290 (2 hrs.).
Educational Media: 24:031; 24:139.
The holder of this endorsement is authorized to serve as a school
media specialist in either kindergarten and grades 1-6 or in
grades 7-12, depending on the level of basic teaching certificate.

This minor includes graduate credits and will require students to
enroll as graduate students for those credits. Graduate credit will not
be awarded unless the student is admitted to graduate study.

Management
(School of Business)
T. McAdams, D. Ashbaugh, D. Birru, L. Bowlin, A. Brahos,
E. Brooks, C. Cooley, C. Das, W. Evenson, T. Frost, L. Goulet,
P. Goulet, A. Jedlicka, C. Kirk, B. Mardis, S. Meyeraan, G. Mills,
R. Mills, F. Moussavi, R. Natarajan, E. Peterson, A. Rappaport,
R. Roth, M. Rueschoff, M. Stoss, R. Waller, H. Wilson, W. Wood,
R. Wyatt.

Note: Students who wish to major in Management are considered
Pre-Management majors until they meet the School of Business
admission requirements. Students may declare their major once the
admission requirements are met. Students will not be permitted to
declare a double major, double minor, and/or a major and minor
within the School of Business. (The Economics major and minor, and
the Business Communications and Business Teaching minors are
excluded.) Also, no more than one emphasis area may be declared in
management. Pre-Management majors are only allowed to take
lower-level (below 100) courses from the School of Business. Management
majors must complete the School of Business admission
requirements and have junior standing in order to take 100-level
School of Business courses. (A copy of the admission requirements
may be obtained from the Advising and Registration Office in the
School of Business.) 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 University of Northern Iowa or an institution from
which transfer credit for these courses is accepted; must earn a 2.2
cumulative grade point average at University of Northern Iowa; and
must earn an overall 2.2 grade point average in 12:xxx, 13:xxx, 15:xxx,
18:xxx, and 92:xxx courses taken at the University of Northern Iowa.

Management Major
Required business core ........................................... 39 hours
15:175.
Information Management: 18:070 (same as 15:080).
Economics: 92:053; 92:054.
Required ........................................... 6 hours
Electives: at least 12 hours by completing one of the
four emphases listed below ........................................... 12 hours
57 hours

Emphases:
I. Business Administration
Group 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.
15:189.
II. Financial Management
Management: 15:155.
Three of the following courses:
Accounting: 12:129.
Economics: 92:113.*
*Credit for 92:113 will count toward the financial management
emphasis only when 15:150 is also completed.
III. Personnel/Human Resources Management
At least 12 hours selected from:
Information Management: 18:119.
IV. Production Management
Three hours from —
Accounting: 12:131.

General Business Concepts Minor
Required ........................................... 21 hours
Accounting: 12:030.
Information Management: 18:070 (same as 15:080).
Economics: 92:024 or equivalent.
Marketing
(School of Business)

Note: Students who wish to major in Marketing are considered Pre-Marketing majors until they meet the School of Business admission requirements. Students may declare their major once the admission requirements are met. Students will not be permitted to declare a double major, double minor, and/or major and minor within the School of Business (the Economics major and minor, and the Business Communications and Business Teaching minors excepted). Also, not more than one specialization area may be declared in Marketing. Pre-Marketing majors are only allowed to take lower-level courses from the School of Business.

Marketing majors must complete the School of Business admission requirements and have junior standing in order to take 100-level School of Business courses. (A copy of the admission requirements may be obtained from the Advising and Registration Office in the School of Business.) To graduate with a major in Marketing 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 the University of Northern Iowa or an institution from which transfer credit for these courses is accepted; must earn a 2.2 cumulative grade point average at University of Northern Iowa; and must earn an overall 2.2 grade point average in 12:xxx, 13:xxx, 15:xxx; 18:xxx, and 92:xxx courses taken at the University of Northern Iowa.

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 30 hours of business for a total of 54-57 hours. See page 64 for complete details of the major program.

Marketing Major

Required business core 39 hours
Information Management: 18:070 (same as 15:080).
Economics: 92:053; 92:054.
Required 9 hours
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
2. Entrepreneurship
3. Marketing Management
4. Marketing Research
5. Retailing
6. Sales

Mathematics and Computer Science
(College of Natural Sciences)

Most of the undergraduate major and minor programs in the Department of Mathematics and Computer Science require one or more of the courses: 80:060, 80:061, and 80:062 (Calculi 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 C- is earned.
2. Undergraduate students who have been admitted to the university provisionally because of non-satisfaction of the high school mathematics requirements 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 9 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
Management: 15:153.
Electives — three of the following for a total of nine (9) hours 9 hours
Computer Science: 81:110; 81:111; 81:132; 81:178.*** 54 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; 80:074 ........................................ 11 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: 4 four of the following courses:

Total: 44 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.
***No course may be counted for both elective and required credit.

Mathematics for Modeling Major — Plan B

Required .................................................. 24 hours
- Computer Science: 81:081.
- Electives (15 hours, including courses from at least two of the three areas, and at least three courses from one of the three areas) .................... 15 hours

Area I:
- Computer Science: 81:130; 81:145; 81:150.

Area II:

Area III:

To complete this major a student will need a minimum of 39 semester hours of course work. There will be seven specific courses required (24 semester hours) and 15 semester hours of electives. The electives will be taken from at least two of three different areas with three courses taken from one of the areas. The purpose of the major is to focus on the process and tools of mathematical modeling and its uses in a variety of applications.

Mathematics Major — Plan C

Required:
- Electives: at least three additional courses to be chosen from the following areas:

Additional electives in mathematics or computer science to make a total of 20 hours.

Total: 24-44 hours

The total program hours will depend on the student’s background and will vary from 24 to 44 hours. This major provides considerable flexibility in course selection and is appropriate for persons with a variety of mathematical interests.

None of the courses 80:020, 80:023, 80:030, 80:043, 80:111, 80:112, 80:113, 80:114, 80:131, 80:134, 80:136, 80:137, 80:139, 80:179, 80:190, 80:191, 80:192, 81:025, 81:037, 81:070, 81:179, and 81:190 may be used to satisfy requirements on this program.
Mathematics Major — Teaching

Required:
Computer Science: 81:081; 81:070 or 81:082.*

Electives: 12 additional hours chosen from the following eight areas, and must include courses in either algebra or geometry and at least one additional area:
Mathematics:

28-48 hours

The total program will depend upon a student's background and will vary from 28 to 48 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:
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 — Teaching

Required: 80:074.

Electives from the following courses

Mathematics Minor

A minimum of 20 hours is required as follows:

Required: 80:060.
Electives from:
Mathematics: 80:061; 80:062; 80:063; 80:072; 80:076; 80:080; 80:120; 80:144; 80:149; the courses listed in the eight areas of electives under the Mathematics Major (Plan A) to make a minimum total of 20 hours for the minor.

Mathematics Minor — Teaching

A minimum of 27 hours is required as follows:

Computer Science: 81:070 or 81:081.*

Electives from:
Mathematics: 80:061; 80:062; 80:063; 80:072; 80:076; 80:080; 80:160; the courses listed in the eight areas of the Mathematics Major — Teaching to make a minimum total of 27 hours for the minor.

*Students with a substantial knowledge of BASIC should take 81:081.

Mathematics Minor (K-6) — Teaching

Required:
One of the following three General Education courses.


Each of the following courses:
Computer Science: 81:037.

One of the following three courses:

Computer Information Systems Minor

Required: 12 hours
Mathematics: 80:050 or 80:072 or 80:074.

Electives: (two of the following) 6 hours
Management: 15:181.
Mathematics: 80:177.

18 hours

Computer Science Minor

Required: 12 hours
Mathematics: 80:074.
Computer Science: 81:081; 81:082; 81:130.

Electives: six hours selected from

18 hours
Military Science


General — The Department of Military Science administers the Army Reserve Officers' Training Corps (ROTC) programs at the University of Northern Iowa. Credits earned in the Department count as general elective credits toward baccalaureate degree requirements. There is no opportunity to major or minor in Military Science. All instructors in the Department of Military Science are career U.S. Army officers.

The Four-Year Program — The Army ROTC Four-Year Program consists of two parts: the Basic Course and the Advanced Course.

The Basic Course is usually taken during the freshman and sophomore years. Students taking a Basic Course class do not incur a military commitment (except for ROTC scholarship students). The Basic Course is designed to allow students to decide if the discipline and challenges of being an Army officer is desirable after graduation. The Basic Course classes are listed below in the recommended sequence:

**Freshman Year**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Number</th>
<th>Subject</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>08:091</td>
<td>Introduction to the Military</td>
<td>1</td>
</tr>
<tr>
<td>Spring</td>
<td>08:092</td>
<td>Foundations of Military Organizations</td>
<td>1</td>
</tr>
</tbody>
</table>

**Sophomore Year**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Number</th>
<th>Subject</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>08:094</td>
<td>Military Leadership Skills</td>
<td>2</td>
</tr>
<tr>
<td>Spring</td>
<td>08:095</td>
<td>Military Survival Skills</td>
<td>2</td>
</tr>
</tbody>
</table>

The Advanced Course is a mutual commitment in which the student confirms a commitment by signing a contract which certifies that a service obligation is understood. The Department of the Army confirms a commitment by paying $1,000 a year during the last two years of the program. The Advanced Course classes are listed below in the recommended sequence.

**Junior Year**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Number</th>
<th>Subject</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>08:116</td>
<td>Small Group Leadership</td>
<td>3</td>
</tr>
<tr>
<td>Spring</td>
<td>08:117</td>
<td>Principles of Military Operations</td>
<td>3</td>
</tr>
<tr>
<td>Summer</td>
<td>08:192</td>
<td>Military Leadership Practicum</td>
<td>0, 4-6</td>
</tr>
</tbody>
</table>

**Senior Year**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Number</th>
<th>Subject</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>08:118</td>
<td>Military Management and Law</td>
<td>3</td>
</tr>
<tr>
<td>Spring</td>
<td>08:119</td>
<td>Administrative Management</td>
<td>3</td>
</tr>
</tbody>
</table>

The Two-Year Program. This program is designed for students about to graduate from junior college or a community college.

It is also available to service veterans and students at the University of Northern Iowa who missed enrolling in the Basic Course.

The Two-Year Program is essentially the ROTC Advanced Course, however, before enrolling, students who have not graduated from Basic Training must agree to complete a six-week U.S. Army ROTC Basic Camp at Fort Knox, Kentucky, during the summer.

The Simultaneous Membership Program. The Simultaneous Membership Program (SMP) allows students to be members of the Iowa National Guard or the Army Reserve and Army ROTC simultaneously.

ROTC SMP students are paid at the rate of at least a Sergeant (E-5) for their Reserve training assemblies, plus $1,000 a year subsistence allowance from the ROTC Advanced Course, and up to $1,400 a year New G.I. Bill educational assistance benefits. Many ROTC SMP students also qualify for the Student Loan Repayment Program.

ROTC Scholarships. U.S. Army ROTC two-, three-, and four-year scholarships are available. They cover full tuition and required educational fees, and provide an amount for textbooks, supplies and equipment.

Army ROTC scholarships also provide a subsistence allowance of $1,000 each school year that the scholarship is in effect. Winning and accepting an ROTC scholarship does not preclude accepting other scholarships. See page 24 of this bulletin for more information about U.S. Army ROTC scholarships.

G.I. Bill. Students participating in the Simultaneous Membership Program are entitled to the New G.I. Bill Educational Assistance Benefits. Receiving the New G.I. Bill Educational Assistance Benefits does not preclude a student from accepting scholarships, however, students can not receive the New G.I. Bill and an ROTC Scholarship for the same period. Many students receiving the New G.I. Bill also qualify for the Student Loan Repayment Program.

Veterans. Veterans receive advanced placement credit for the entire Basic Course. Veterans who participated in Veterans Educational Assistance Program (VEAP) can start the Advanced Course during their freshman year; non-VEAP veterans can start the Advanced Course at the beginning of their sophomore year. Veterans receive an ROTC allowance in addition to their G.I. Bill benefits.

Special Schools. Both Basic and Advanced Course students can volunteer to attend special military schools such as Airborne School, Northern Warfare Training, Air Assault Training, or Ranger School.

Financial Assistance. As a minimum, all Advanced Course ROTC students receive $100 per month as a tax-free allowance. Students on scholarship, participating in the Simultaneous Membership Program, and veterans will earn additional compensations as enumerated above. Students attending special training, such as The Military Leadership Practicum or Airborne School, receive a travel allowance and are paid while receiving the training. Uniforms and books for all classes taught by the Military Science Department are furnished, and a tax-free uniform allowance is provided to all students who complete the Advanced Course.

Additional Information. Additional information about the specific courses offered by the Department of Military Science is found on page 146 of this bulletin, under Military Science. For additional information, write to the University of Northern Iowa, Department of Military Science, Old Auditorium Building (Room 39), Cedar Falls, IA 50614-0142; or call (collect) the Student Adviser at (319) 273-6105.

Modern Languages

(College of Humanities and Fine Arts)


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 74. 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 30 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.

Can only 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**

- **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: Portugal, for students in Portuguese) 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.
- **9 hours of electives in history, political science, economics or geography — approved by adviser**
- **(6 hours outside of history).**

**Foreign Language component**

- **22 hours beyond first-year French, German, Portuguese, Russian or Spanish, to include:**
  - Russian: 77:101; 77:102; 77:141.
  - 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 Portuguese and Russian.

Required for students emphasizing English history and language: one summer's study abroad in the British Isles.

**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:

**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:
  - French:

**French Minor**

**Required:**
- French: 72:101 or 72:103 ........................................... 3 hours
- 18 hours in French in courses more advanced than 72:002 ............ 18 hours
- 21 hours

**French Minor — Teaching**

**Required:**
- **Languages:** 70:190 .................................................... 3 hours
- French: 72:101 ....................................................... 3 hours
- 18 hours in French in courses more advanced than 72:002 ............ 18 hours
- 24 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.

**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:
  - German:
    - a. 74:123; 74:150.
### German Minor
**Required:**
- German: 74:101 ............................................... 3 hours
- 18 hours in German in courses more advanced than 74:002 .... 18 hours
- 21 hours

### German Minor — Teaching
**Required:**
- Languages: 70:190 ........................................... 3 hours
- German: 74:101 ............................................... 3 hours
- 18 hours in German in courses more advanced than 74:002 .... 18 hours
- 24 hours

### Russian Minor
**Required:**
- Russian: 21 hours in courses in Russian more advanced than 77:002 ............................................... 21 hours

### Russian Minor — Teaching
**Required:**
- Languages: 70:190 ........................................... 3 hours
- Russian: 21 hours in courses in Russian more advanced than 77:002 ............................................... 21 hours
- 24 hours

### Spanish Major
**Required:** 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:
- **Spanish:**
  - a. 78:123; 78:140; 78:152.
  - 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:
  - **Spanish:**
    - a. 78:123; 78:140; 78:152.
    - c. 78:105; 78:112; 78:118; 78:130; 78:134; 78:139; 78:142; 78:144.

### Spanish Minor
**Required:**
- Spanish: 78:101 ............................................... 3 hours
- 18 hours in Spanish in courses more advanced than 78:002 ........ 18 hours
- 21 hours

### Spanish Minor — Teaching
**Required:**
- Languages: 70:190 ........................................... 3 hours
- Spanish: 78:101 ............................................... 3 hours
- 18 hours in Spanish in courses more advanced than 78:002 .... 18 hours
- 24 hours

### Program Certificates
For information on the following Program Certificates, contact the department office or the Registrar's Office.
- **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 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
(College of Humanities and Fine Arts)
**R. D. Ross,** **Director.**
- **H. Atiel,** **T. Barry,** **C. Becker,** **M. Beckman,**
  **D. Buch,** **B. Chidester,** **G. Couwen,** **A. Dennis,** **J. Fallin,** **F. Ferrara,**
  **A. Floyd,** **J. Funderburk,** **J. Gault,** **R. Grabowski,** **J. Graham,** **H. Halgedahl,**
  **R. Hammill,** **J. Hansen,** **S. Hansen,** **R. Hogancamp,** **J. Holstad,** **L. Jernigan,**
  **R. Johnson,** **M. Kratzenstein,** **G. Kreitzer,** **W. Lavonis,** **M. Matheson,**
  **P. Michaelides,** **L. Morgan,** **W. Morgan,** **W. Shepherd,** **R. Washut,** **D. Wendt.**

The School of Music offers majors and minors under three baccalaureate degrees: the Bachelor of Arts, the Bachelor of Fine Arts, and the Bachelor of Music. These include:
- **Bachelor of Arts — Music Major**
- **Audio Recording Technology Minor**
- **Jazz Studies Minor**
- **Music Minor**
- **Music Minor — Teaching**
- **Bachelor of Fine Arts — Music Theatre Major**
- **Bachelor of Music — Music Education Major**
- **Performance Major**
- **Theory — Composition Major**

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.

The Music Education major prepares the student for a teaching career and provides certification in music for grades K-6 and 7-12. The Performance and Theory-Composition majors are professional degrees designed to prepare the student for 1) careers as artists-performers, composers, or 2) entrance to graduate schools where further excellence in a performance area might be pursued.
General Requirements for Undergraduate Majors

Music majors on all degree programs must choose an area of applied music (54:xxx) for specialization and must meet the proficiency standards of the School of Music.

Auditions: Admission to the School of Music requires successful completion of an audition in the main performance area.

Piano 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.

Foreign 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 Organizations: In addition to applied music, all music majors must participate in at least one of the large organizations each semester in which they are enrolled as regular university students. Participation in ensembles (53:012; 53:112) does not satisfy the large organization requirements unless exception is made in advance by the Director of the School of Music.

- Wind and percussion students will elect either band or orchestra. All wind and percussion students are required to participate in marching band for a minimum of one semester. (It is strongly recommended that this requirement be fulfilled during the freshman year.) Wind and percussion students in music education are required to participate in marching band for a minimum of two semesters. (See also page 179, Music Organizations and Ensembles, for Jazz Band credits.)
- String players will elect the orchestra.
- Voice majors will be assigned to an appropriate choral group.
- Keyboard majors will elect a large organization for their participation requirement. Music education keyboard majors will elect a large organization appropriate to their specialization.

Bachelor of Arts Degree Programs

Music Major

Required:
Applied Music (54:xxx), including at least 4 hours of 100-level work in major area 16 hours
Music Theory: 58:011; 58:012; 58:013; 58:014; 58:015; 58:016; 58:017; 58:018 16 hours
Music Literature: 59:005; 59:010; 59:011 8 hours
Electives in music (limited to 100-level courses in the following areas only: 56:xxx; 57:xxx; 58:xxx; 59:xxx) 6 hours

Additional requirement: senior recital (may take the form of a performance, composition, or an essay).

Audio Recording Technology Minor

Required:
Music Techniques: 56:015; 56:115; 56:198 10 hours
(Internship) 11 hours
Physics: 88:018; 88:052; 88:152 21 hours

Jazz Studies Minor

Required:
Music, Organizations and Ensembles: 53:x16 (Jazz Bands and Combos) 6 hours
Applied Music (54:xxx) 4 hours
Music Techniques: 56:152; 56:155 4 hours
Music Theory: 58:127; 58:128 4 hours
Music Literature: 59:050 3 hours

Music Minor

Required:
Music, Organizations and Ensembles (53:xxx) 2 hours
Applied Music (54:xxx) 4 hours
Music Theory: 58:010; 58:011; 58:012; 58:015; 58:016 10 hours
Music Literature: 59:005 2 hours
Electives in music (56:xxx; 57:xxx; 58:xxx; 59:xxx) 6 hours

24 hours

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: 56:017 or 56:018 2 hours
Music Education and Methods: 57:050; 57:141 5 hours
Music Theory: 58:010; 58:011; 58:012; 58:015; 58:016 10 hours
Music Literature: 59:005 2 hours
Electives in music (56:xxx; 57:xxx) 2 hours

27 hours

Departmental audition requirements apply to this minor.

Note: Students on this minor must satisfy Level II 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.

Required:
- Music Core (63 hours):
  - Music, Organizations and Ensembles: (53:xxx) ... 8 hours
  - Applied Music: Applied Piano (54:046) .......... 2 hours
  - Applied Voice (54:049) .......................... 2 hours
  - Music Techniques: 56:017 or 56:018; 56:050/150 and/or 56:051/151 (6 hrs.) ........... 8 hours
  - Music Theory: 58:011; 58:012; 58:013; 58:015; 58:016; 58:017 ......................... 12 hours
  - Music Literature: 59:005; 59:129 ................. 5 hours
  - Electives: choose from the following .......... 12 hours
    - Music Education and Methods: 57:130.
  - Theatre Core (17 hours):
    - Physical Education: 42:035 ...................... 2 hours
    - Communication and Theatre Arts: 50:024;
      50:027; 50:050; 50:053; 50:080 .............. 15 hours
    - 80 hours

Additional Requirements:
1. Keyboard proficiency.
2. Recital/project.

Note: To qualify for certification to teach, see page 44 for certification requirements under the Bachelor of Music degree. Further details may be obtained from the School of Music.

Bachelor of Music Degree Programs

Music Education Major (Extended Program)
Required:
- Music, Organizations and Ensembles (53:xxx) .... 7 hours
- Applied Music (54:xxx) including at least 2 hours of 100-level work in major area .................. 14 hours
- Music Education and Methods: 57:050; 57:141 .... 5 hours
- Music Theory: 58:011; 58:012; 58:013; 58:014; 58:015; 58:016; 58:017; 58:018; 58:110 ........ 18 hours
- Music Literature: 59:005; 59:010; 59:011 ........ 8 hours
  - CORE TOTAL (Applicable to all specializations below) ........................................ 52 hours
- Specialization A, B, or C below .................. 10-13 hours
  - MAJOR TOTAL ........................................... 62-65 hours

Specializations (choose A, B, or C below)

Specialization A (Choral/General: K-6, 7-12)
- Music Techniques: 56:018; 56:022; 56:030 ........ 6 hours
- Music Education and Methods: 57:130; 57:165 ........ 5 hours
  - 12 hours

Specialization B (Instrumental: K-6, 7-12)
- Music Techniques: 56:017; 56:021 .................. 5 hours
- Music Education and Methods: 57:010 (5 hrs.); 57:155 ........ 8 hours
  - 13 hours

Specialization C (Elementary/General: K-6 only)
- Applied Music: Applied Piano (54:046) beyond Piano Proficiency ................................. 2 hours
- Music Techniques: 56:017 or 56:018 .............. 2 hours
- Music Education and Methods: 57:144; 57:145 .... 4 hours
- Electives (56:xxx; 57:xxx) ......................... 2 hours
  - 10 hours

Optional Specialization:

Specialization D (Jazz: K-6, 7-12)
- Music Techniques: 56:017; 56:021; 56:052/152 .... 8 hours
- Music Education and Methods: 57:010; 57:155 .... 8 hours
- Music Theory: 58:127; 58:128 ...................... 4 hours
- Music Literature: 59:050 .......................... 3 hours
  - 23 hours

Note: Music education majors will meet the requirements of 25:050, Classroom Evaluation Instruments (Professional Education Requirements), by completing 57:141 and 57:155 or 57:165. They will meet the requirements of 24:020 Educational Media by completing 57:050, Introduction to Music Education. These options remain valid only for those students who complete their undergraduate degrees in music education.

Additional Major Requirements:
1. For all specializations (A-D): senior recital (half recital).
2. For specialization D only: two (2) semesters of jazz combo.
3. For students whose applied area is voice: 56:030 is required.

Performance Major
Required:
- Music, Organizations and Ensembles (53:xxx) .... 8 hours
- Applied Music (54:xxx) ............................. 22 hours
- Music Techniques: 56:017 or 56:018; 56:021 or 56:022 ........................................ 5 hours
- Music Literature: 59:005; 59:010; 59:011; 59:1xx .................................................. 14 hours
- Electives: 54:xxx (maximum of 4 hrs.); 56:xxx; 57:xxx; 58:xxx; 59:xxx only ....................... 10 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 44) and the Professional Education Requirements (pages 42-43).
Theory-Composition Major

Required:
- Music Theory/Applied Music: Composition Class/ Applied Composition — 58:022; 58:122; 54:054 and 54:154 for a total of 18 hours
- Music, Organizations and Ensembles (53:xxx) — 8 hours
- Applied Music: Applied Piano 54:046 and/or 54:146 beyond Piano Proficiency — 4 hours
- Music Techniques: 56:017 or 56:018; 56:021 or 56:022 — 5 hours
- Music Literature: 59:005; 59:010; 59:011; 59:xxx — 14 hours
- Electives in music (100-level) — 80 hours

Additional Requirement: composition recital.

Program Certificate

For information on the following Program Certificate, contact the department office or the Registrar's Office.

Music in Special Education Program Certificate

Philosophy and Religion

(College of Humanities and Fine Arts)


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:xxx (may include 64:139) — 15 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:xxx) and at least six (6) hours shall be in religion (64:xxx). The remaining 15 hours may be in either philosophy or religion courses.

Religion Major

Required:
- General Study of Religion: one of the following — 3 hours
- Bible — 6 hours
- Religion: 64:141; 64:142.
- Development of Christianity: two from the following — 6 hours
- Great Living Religions: two from the following — 6 hours
- Religion and Society: one from the following — 3 hours
- Religion: 64:117; 64:118; 64:162; 64:165.
- Religion and the Person: one from the following — 3 hours
- Religion and the Humanities: one of the following — 3 hours
- Religion: 64:123.
- Religion and Philosophy: one from the following — 3 hours
- Religion: 64:139.
- Electives in Religion — 3 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:
- Bible and World Religions — 9 hours
- Christianity: two from the following — 6 hours
- Religion and Society: one from the following — 3 hours
- Religion: 64:117; 64:118; 64:162; 64:165.
- Great Living Religions: one from the following — 3 hours
- Human Selfhood: one from the following — 3 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.
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.

**Philosophy/Religion/Business: Combined**

**Five-Year B.A./M.B.A. Program**

The UNI School of Business and the Department of Philosophy and Religion jointly offer a five-year program in three combinations leading to a Bachelor of Arts degree (B.A.) and a Master of Business Administration degree (M.B.A.). They are Philosophy B.A./M.B.A., Religion B.A./M.B.A., and Philosophy and Religion B.A./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; R. Enquist, R. Hanson, V. Jensen, K. Macomber, D. Olson, R. Unruh, F. Vilmair, 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 B.A. 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 B.A. 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 Major — Teaching program is for students preparing to be physics teachers at the secondary school level.

---

**Bachelor of Science Degree Programs**

— 130 semester hours

**Note:** To graduate with a B.S. degree in Physics or Applied Physics a student must earn at least an overall 2.50 grade point average in all courses applied toward the major.

**Applied Physics Major**

**Required:**

- 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
- 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; 88:179* (2 hrs.) ........ 35-37 hours
- Electives in physics — 100-level (excluding 88:193) .................. 4 hours
- 62-67 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. This would require additional semester(s) of study.

*An Applied Physics internship under 88:179 Cooperative Education should be taken during the junior or senior year. If it is not possible to make suitable arrangements for this, the internship may be done under 88:184 with approval of the department. Successful completion of either 88:179 or 88:184 requires both a written and an oral report.

**Physics Major**

**Required:**

- 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
- 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; 88:166; 88:167; 88:172; 88:180 (1 hr.) .................. 30-32 hours
- Electives in physics — 100-level (excluding 88:193) .................. 8 hours
- 61-66 hours

**Note:** 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:**

- Mathematics: 80:060; 80:061 ........................................ 8 hours
- Electives in mathematics beyond 80:061 .......... 4 hours
- 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 ........ 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, and 88:172; and at least one from 88:152, 88:154, 88:161, 88:167, 88:175 .......... 13 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; 82:196 .................. 3 hours
- 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 hours
- Electives: non-physics courses from the College of Natural Sciences (excluding 82:020 and mathematics below 80:060) .................................................. 6 hours
- Mathematics: 80:060; 80:061 .................................................. 49 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.

Completion of this major will satisfy the requirements of the Iowa Department of Education for Physics approval (effective October 1, 1988).

Physics Minor

Required:
- Electives in physics: 100-level courses (excluding 88:193) .................................................. 16 hours

Physics Minor—Teaching

Required:
- Science and Science Education: 82:190; 82:196 .................. 3 hours
- Physics: 88:054; 88:056; 88:130; 88:131; 88:137; 88:138; 88:193 .................................................. 10 hours
- Electives in physics: 100-level courses (including no more than four hours from 88:152 and 88:154) .................................................. 14 hours
- Mathematics: 80:060; 80:061 .................................................. 27 hours

Political Science

(College of Social and Behavioral Sciences)


Political Science Major

Required:
- Economics: 92:053 .................................................. 3 hours
- 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
- Sociology: 98:058 .................................................. 3 hours
- 39 hours*

Political Science Major — Teaching

(Extended Program)

Required:
- Social Science: 90:190 .................................................. 3 hours
- Economics: 92:024 or 92:053 .................................................. 3 hours
- Political Science: 94:011; 94:014; 94:124; 94:131 or 94:132; 94:134 or 94:151; 94:160 or 94:161 .................................................. 18 hours
- One of the following: 94:135 or 94:149 or 94:164 or 94:165 or 94:168 or 94:169 .................................................. 3 hours
- Electives in American politics .................................................. 9 hours
- 36 hours*

A teaching minor is required in one of the social sciences.

*Not more than nine (9) 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 GPA of 2.5 for all courses whether taken at the University of Northern Iowa or transferred from other institutions. To graduate with a major in Public Administration a student must have a cumulative GPA of 2.5 in course work taken at University of Northern Iowa in the Public Administration Major.

Required:
- Computer Science: 81:070 or Social Science: 90:070 .................................................. 3 hour
- Political Science: prerequisite to core—94:014; 94:148 .................................................. 6 hours
- Core: 94:134 or 94:173; 94:153; 94:172; 94:174 .................................................. 12 hours
- 94:176 .................................................. 3 hours
- Internship: 94:180; 94:181 (4-8 hrs.) .................................................. 6-10 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 hrs.).

Area 2 — State and Community Planning — 15 hours from:
- Social Work: 45:196.
- Political Science: 94:131; 94:132; 94:171; 94:189 (1-3 hrs.).

Area 3 — Public Law — 15 hours from:
- Management: 15:105.
- Political Science: 94:136; 94:141; 94:142; 94:146; 94:147; 94:189 (1-3 hrs.).

Area 4 — Public Personnel — 15 hours from:
- Political Science: 94:189 (1-3 hrs.).
- Geography: 97:150.
- Sociology: 98:114.
Area 5 — Public Services — 15 hours from:
Psychology: 40:160.
Social Work: 45:040; 45:121; 45:144; 45:173; 45:175; 45:196.
Social Work: 45:163 or
Sociology: 98:130.
Political Science: 94:132; 94:140; 94:189 (1-3 hrs.).
Anthropology: 99:166.

Area 6 — Public Policy — 15 hours from:
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.

*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
Political Science: 94:144; 94:170; 94:189; 94:198.
Geography: 97:150; 97:170.

21 hours

*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 GPA or by demonstration of an equivalent competency level.

An additional requirement for political science majors is that at least nine (9) 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 (9) 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.

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 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
94:132; 94:134 or 94:151; 94:160 or 94:161 .......... 18 hours
One of the following: 94:135 or 94:149 or 94:164
or 94:165 or 94:168 or 94:169 ...................... 3 hours
Electives in American politics ..................... 3 hours

24 hours

*Not more than nine (9) 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)

Psychology Major

Required:
Beginning-level electives — 6 hours from the following:
Basic science options — 9 hours from the following:
Advanced electives — 9 hours from the following:
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:
Beginning-level electives — 6 hours from the following:
Basic science options — 9 hours from the following:
Advanced electives — 9 hours from the following:
40:173; 40:189 (3 hrs. maximum); 40:190;
40:192 (3 hrs. maximum); 40:198 (3 hrs. maximum) .......... 9 hours

38 hours

Psychology Minor

Required:
Psychology: 40:045; 40:118 .................. 7 hours
Electives in psychology .................. 15 hours

22 hours

95
Psychology Minor — Teaching
Required:
Basic science options — 3 hours from the following:
Electives in psychology
Program Certificate
For information on the following Program Certificate, contact the department office or the Registrar’s Office.
Gerontology Program Certificate
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 13-16 hours
Biology: 84:051 and 84:052.
Chemistry: 86:044 and 86:048, or 86:070.
Earth Science: 87:031 and 87:035.
Electives in science
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 overall GPA of 2.50 is required for retention in the program.
Science Major — Teaching
Plan A — Junior High School Science
This major is intended for students who wish to teach science at the junior high or beginning high school level (grades 7-9). The program will lead to Iowa Department of Education Approval in General Science and Physical Science.
Required:
Educational Psychology: 20:116
Elementary, Early Childhood, and Middle School/ Junior High: 21:150
Science and Science Education: 82:190; 82:194; 82:195; 82:196
Biology: 84:051; 84:052
Chemistry: 86:044; 86:048
Earth Science: 87:010; 87:011; 87:021; 87:031
Physics: 88:054; 88:056
Science Electives: 8 hours from biology, chemistry, physics and earth science which must include 6 hours at the 100 level or above
Notes:
1. Students with sufficient high school preparation may be allowed to omit some introductory courses and substitute other courses from the same department.
2. The mathematics prerequisite for one or more of the above courses is a working knowledge of algebra and trigonometry or 80:046.
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:
- Science and Science Education: 82:132; 82:190; 82:194; 82:195; 82:196 ................................. 9 hours
- Biology: 84:051; 84:052; 84:103; 84:168 .............................. 14 hours
- Chemistry: 86:044; 86:048 ................................. 8 hours
- Earth Science: 87:021; 87:031; 87:035 ............................... 11 hours
- Physics: 88:054; 88:056 ............................... 8 hours
- Electives in biological and physical science at the 100 level __________________________________ 4 hours

54 hours

Note: The mathematics prerequisite for one or more of the above courses is a working knowledge of algebra and trigonometry or 80:046.

Plan B — All Sciences (Extended Program)

This major is intended for students who wish to teach at the secondary level in all areas of science (biology, chemistry, earth science, and physics). The program will lead to Iowa Department of Education approval in biology, chemistry, earth science, physics, physical sciences, and general science. Due to the number of courses required for this major it can not be completed in nine semesters of normal work. It will require a longer time or additional work during summers.

Required:
- Science and Science Education: 82:190; 82:195; 82:196 ................................. 4 hours
- Biology: 84:051; 84:052 ................................. 8 hours
- Chemistry: 86:044; 86:048 ................................. 8 hours
- Earth Science: 87:010; 87:011; 87:021; 87:031; 87:035 ............................... 15 hours
- Physics: 88:054; 88:056 ............................... 8 hours
- Two courses from the following __________________________________ 4 hours
- Science Education: 82:194.
- Electives from:
  - Biology (should include botanical and zoological science) ................................. 8 hours
  - Chemistry ................................. 8 hours
  - Earth Science ................................. 2 hours
  - Physics ................................. 8 hours

73 hours

For completion of this major the grade point average in each of the four disciplines must be 2.0 or higher, with a GPA in the major as a whole of 2.4.

Elective courses must be ones that count toward the major in the discipline or be approved for this use by the department offering the course. The electives must include 12 hours at the 100 level or above, with three (3) 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 substitute other courses from the same department.
2. The mathematics prerequisite for one or more of the above courses is a working knowledge of algebra and trigonometry or 80:046.

Basic Science Minor (K-6) — Teaching

For those pursuing K-6 general classroom teacher certification with an endorsement in Basic Science (K-6).

Required:
- Science and Science Education: 82:031; 82:032 ................................. 8 hours
- One option each from three of the following areas __________________________________ 12 hours
  - Biology: 84:014 and 84:015.
  - Chemistry: 86:010.
  - Earth Science: 87:010 and 87:011; or 87:031.
  - Physics: 88:011.
- Elementary, Early Childhood, and Middle School/ Junior High: 21:141 or
- Science and Science Education: 82:194 .............................. 2-3 hours
- Elementary, Early Childhood, and Middle School/ Junior High:
  - 21:142 or
- Science and Science Education: 82:130 .............................. 3 hours

25-26 hours

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, Psychology, 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
- A minimum of 15 hours in each of any three Social Science disciplines is required to meet certification for grades 7-12. Only one field of history (American or world) may be selected as one of the three areas of the major .............................. 45 hours

48 hours

American Government
- Political Science: 94:014; plus 9 more hours in American government and one 3 hour course in comparative government or international relations.

American History
- History: 96:014; 96:015; plus 9 more hours in American history.

Anthropology
- Anthropology: 99:010; 99:011; plus 9 more hours in anthropology.

Economics
- Economics: 92:053; 92:054; plus 9 more hours in economics (92:103 and 92:104 recommended).

Geography
- Geography: 97:025; 97:031; 97:150; plus 6 more hours in geography (excluding 97:010).

Psychology
- Psychology: 40:008; 40:118; plus 9 more hours in psychology.

Sociology
- Sociology: 98:058; plus 12 more hours of sociology.

World History
- History: 96:054; 96:055; plus 9 more hours in European, Asian, Latin American and/or African History.
Social Work
(College of Social and Behavioral Sciences)

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:
- Home Economics: 31:055 or
- Psychology: 40:120 ............... 3 hours
- Social Work: 45:041; 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
- Elective from the "Field of Practice" category — chosen from the following: 45:121; 45:171; 45:173; 45:174; 45:175; 45:194 .......... 3 hours
- Elective from the "Advanced Methodology" category — chosen from the following: 45:142; 45:143; 45:172; 45:193**; 45:194; 45:195** ................................. 3 hours
- Sociology: 98:080** .......................... 3 hours

*45:184 can also be taken for 4 additional credit hours on an elective basis.
**Course may be taken for elective credit if not taken to fulfill core course requirements.
***40:049 or 80:072 may be substituted for 98:080.

A minimum cumulative grade point average for all college work of 2.2 is required for admission to the Social Work Major. A minimum University of Northern Iowa grade point average of 2.2 is required for graduation as a social work major. The faculty reserve the right to deny admission to the major for factors related to potential as a social worker.

Prior to the initiation of the second Social Work Practice course, social work majors are required to complete a departmentally-approved, 30-contact-hour volunteer experience in a social service agency.

In order to enroll in Field Instruction the following requirements must be present: senior standing (90 or more credit hours completed); and completion of 45:091; 45:192; 45:193 or 45:195 (may be corequisite); and 45:196 (may be corequisite) with a minimum grade of C.

Students who graduate with a major in Social Work receive a Bachelor of Arts degree with a Social Work Certificate.

Program Certificate
For information on the following Program Certificate, contact the department office or the Registrar's Office.

Substance Abuse Counseling Certificate

Sociology and Anthropology
(College of Social and Behavioral Sciences)

Anthropology Major
Required:
- Sociology: 98:080 ........................................... 3 hours
- Anthropology: 99:010; 99:011 .......................... 6 hours
- Electives in anthropology ........................................ 24 hours
- Electives in sociology ............................................. 3 hours

Not more than nine (9) 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.

Anthropology Major — Teaching (Extended Program)
Required:
- Social Science: 96:190 ........................................... 3 hours
- Sociology: 98:080 ........................................... 3 hours
- Anthropology: 99:010; 99:011 .......................... 6 hours
- Electives in anthropology ............................................. 24 hours

A teaching minor is required, and it is strongly recommended that the minor be in another social science discipline.

Not more than nine (9) semester hours of credit from 99:145, 99:184, 98:189, and 99:198 may be applied toward this major.

Criminology Major
Required:
- Anthropology: 99:011 ........................................... 3 hours
- Three hours from the following .................. 3 hours
- Sociology: 98:174 or
- Three hours from the following .................. 3 hours
- Electives: 6 hours from the following .................. 6 hours
- Anthropology: 99:166 .............................. 42 hours

Not more than 18 semester hours of credit taken within 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 (9) semester hours of credit taken within the Sociology Minor may also be counted for credit on this major.
Sociology Major

Required:
- Electives in sociology (98:xxx) ........................................ 12-15 hours
- Anthropology: 99:178 .................................................... 3 hours
- Electives in anthropology (99:xxx) ................................. 3-6 hours

At least 15 hours of credit toward the major must be in 100-level courses.


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 (6) semester hours of credit taken within the Criminology Minor may also be counted for credit on this major.

Sociology Major — Teaching (Extended Program)

Required:
- Social Science: 90:190 ................................................. 3 hours
- Anthropology: 99:011 .................................................. 3 hours
- Sociology electives — at least 12 hours must be 100-level courses ................................................. 15 hours
- Sociology electives — at least 12 hours must be 200-level courses ................................................. 21 hours

A teaching minor is required, and it is strongly recommended that the minor be in another social science discipline.

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 9 semester hours of credit taken within the Criminology Minor may also be counted for credit on this major.

Anthropology Minor

Required:
- Anthropology: 99:010; 99:011 .................................... 6 hours
- One of the following area courses: 99:132; 99:136; 99:137 ...................................................... 3 hours
- Electives in anthropology ............................................. 6 hours

Anthropology Minor — Teaching

Required:
- Anthropology: 99:010; 99:011 .................................... 6 hours
- Electives in anthropology ............................................. 18 hours

Criminology Minor

Required:
- Sociology: 98:122; 98:126; 98:127; 98:175 ........................................ 12 hours
- Electives in sociology or approved area ............................... 0-3 hours

Not more than six (6) 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 (9) 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

Required:
- Sociology: 98:058; 98:060 ............................................. 6 hours
- Electives in sociology .................................................... 15 hours

Not more than nine (9) semester hours of credit from 98:145, 98:184, 98:189, and 98:198 may also be counted for credit on this minor.

Not more than nine (9) semester hours of credit taken within the Criminology Major may also be counted for credit on this minor.

Not more than six (6) semester hours of credit taken within the Criminology Minor may also be counted for credit on this minor.

Sociology Minor — Teaching

Required:
- Sociology: 98:058; 98:060 ............................................. 6 hours
- Electives in sociology .................................................... 18 hours

Not more than nine (9) semester hours of credit from 98:145, 98:184, 98:189, and 98:198 may also be counted for credit on this minor.

Not more than nine (9) semester hours of credit taken within the Criminology Major may also be counted for credit on this minor.

Not more than six (6) semester hours of credit taken within the Criminology Minor may also be counted for credit on this minor.

Program Certificate

For information on the following Program Certificate, contact the department office or the Registrar’s Office.

Skills in Social Research Certificate

Special Education
(College of Education)


Early Childhood Special Education Major — Teaching

This major leads to certification for teaching young handicapped children from birth through age six. The student will complete the General Education requirements, the Professional Education Sequence, the specified major requirements, plus approved electives to complete a minimum of 130 hours. The specified major requirements are as follows:

Required:
- Major requirements ..................................................... 24-26 hours
  Health: 41:010; 41:072.
  Communicative Disorders: 51:106.

35-38 hours
Special Education — Mental Disabilities: Moderate/Severe/Profound Major — Teaching

This major leads to certification for teaching students with moderate, severe, and profound mental disabilities from chronological ages 5 to 21. The student will complete the General Education requirements, the Professional Education Requirements, the specific major requirements and electives to complete a minimum of 130 hours. The prescribed program is as follows:

Required:
- Major requirements 19-21 hours
- Health: 41:972.

Special Education Minor — Teaching

The student must complete all requirements for an Early Childhood, Elementary, Secondary, or Special Education major and complete student teaching in both the major and the special education minor endorsement area(s).

Behavioral Disorders, K-6 Emphasis

Required:
- Minor requirements 8-9 hours
- Educational Psychology: 20:173.
- Special Education: 22:142; 22:192 (2-3 hrs.) 19-21 hours

Behavioral Disorders, 7-12 Emphasis

Required:
- Minor requirements 11-12 hours
- Educational Psychology: 20:173.

Learning Disabilities, K-6 Emphasis

(Not available to secondary majors.)

Required:
- Minor requirements 12-14 hours
- Educational Psychology: 20:170.
- Special Education: 22:143 or Reading and Language Arts: 23:147 (Corequisite: 23:192; prerequisites: 23:110 or 23:130; 23:140.) or Communicative Disorders: 51:106 (Prerequisites waived for special education majors and minors.) or Mathematics: 80:192 (Prerequisite: 80:134 or 80:190).
- 23-26 hours

Learning Disabilities, 7-12 Emphasis

(Not available to secondary majors.)

Required:
- Minor requirements 12-14 hours
- Educational Psychology: 20:170.
- Special Education: 22:143 or Reading and Language Arts: 23:147 (Corequisite: 23:192; prerequisites: 23:110 or 23:130; 23:140.) or Communicative Disorders: 51:106 (Prerequisites waived for special education majors and minors.) or Mathematics: 80:192 (Prerequisite: 80:134 or 80:190).
- 23-26 hours

Mental Disabilities Mild/Moderate, K-6 Emphasis

Required:
- Minor requirements 12-14 hours

Mental Disabilities Mild/Moderate, 7-12 Emphasis

Required:
- Minor requirements 15-17 hours

Multicategorical Resource, K-6 Emphasis

The student must complete all requirements for the Elementary or Secondary Education Major.

Required:
- Minor requirements 14-15 hours

Multicategorical Resource, 7-12 Emphasis

The student must complete all requirements for the Elementary or Secondary Education Major.

Required:
- Minor requirements 17-18 hours
Teaching
(College of Education)
D. Else, Head.

Malcolm Price Laboratory School


Office of Student Field Experiences


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 pupils enrolled in grades N 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 Education 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 classroom and instructional experiences for students from all departments of the university as they prepare to enter the teaching profession. Members of the faculty supervise and direct each individual's teaching experience 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 Education.

3. As an agent of leadership to Iowa 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 off-campus 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 undergraduate students 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 Teacher Education and the jurisdiction of the Dean of the College of Education.

Completion of the present undergraduate teaching curriculum requires a minimum of twelve 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 or more semester hours of credit in student teaching at another college or university in the same areas as their major at the University of Northern Iowa will have their previous experience evaluated to determine how much additional student teaching is needed.

Teacher education majors seeking a dual endorsement (i.e., special education/elementary, elementary/secondary, secondary/elementary) must complete a minimum of twelve semester hours of student teaching. The twelve hours of student teaching will be divided between the two levels in the student teaching assignment. Elementary majors with a minor in special education must complete one half of their twelve-hour student teaching experience in a regular classroom and one half of their twelve-hour experience in a special education setting. The special education student teaching assignment must be in a different category (i.e., mental disabilities or behavioral disabilities) than the 22:192 Experience in Special Education (see page 155). Student teaching is a twelve-semester-hour offering. An additional three semester hours of credit will be received for the Human Relations course, 19:070, which accompanies the student teaching semester.

Special area majors (i.e., art, health, music, and physical education) receive kindergarten through 6 and 7-12 endorsements. They are required to complete twelve semester hours of student teaching in the special subject area. Special area majors must complete student teaching at both the elementary and secondary school levels.

Teacher education majors may apply up to twelve credit hours of student teaching toward the 130-hour minimum required for graduation. Approval of the Teacher Education Coordinating Council (TECC), 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 twelve hours of credit in student teaching.

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 off-campus affiliated schools, includes planning and organizing for instruction, developing classroom teaching competencies and skills, evaluating pupil progress, participating in extra-class activities, working with special school personnel, and utilizing school and community resources in the instructional program.

A student teacher who withdraws from student teaching (28:1xx) prior to the midpoint of either the first or second assignment within their twelve-hour experience (if they have two placements) or before the mid-term of a single full semester assignment will receive a "W" (Withdrawn). A student teacher, however, who withdraws from student teaching after the midpoint of the student teaching term will receive a No-Credit grade.

The applicant for student teaching who previously received a No-Credit grade in 28:1xx must be recommended for placement to the Teacher Education Coordinating Council (TECC) by the Director of Teacher Education 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 43 and is the same as that required for graduation (see page 49). A student must also have been approved on a teacher-education program and must file an
application for student teaching according to the time line published by the Office of Student Field Experiences. Students whose applications are received after the established deadline will not be guaranteed a placement in the current semester for which they were a late applicant.

**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/Soviet Area Studies Major
- Russian/Soviet Area Studies Minor
- 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**

- English Language and Literature: 62:052.
- Political Science: 94:014.

Plus additional electives from the four areas above for a total of 36 hours.

**Required: a senior colloquium**

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.

**Asian Studies Major**

Required:

- Humanities: 68:124; 68:125
- Economics: 92:053
- Political Science: 94:011
- History: 96:182; 96:187
- Anthropology: 99:011

**Electives in Asian Studies**: a minimum of 18 hours of credit from at least four different disciplines must be completed from the following courses (a maximum of six (6) hours credit in Hindi or Chinese language courses may be applied toward satisfying the 18-hour elective credit requirement).

- Art: 60:147.

**Supervised Research Project**

- Humanities: 68:198 Independent Study (to be supervised by the Asian Studies Committee)

**Language**

- Elementary Hindi I and II;
- Intermediate Hindi I and II;
- Elementary Chinese I and II;
- Intermediate Chinese I and II.

**Economics**: 92:143.

- Political Science: 94:165; 94:168; 94:170.

**39 hours**

**Asian Studies Minor**

Required:

- Humanities: 68:124; 68:125
- 68:198 (to be supervised by the Asian Studies Committee) combining Asian Studies and the student's major discipline

One additional course each in China and India (to be supervised by the Asian Studies Committee) combining Asian Studies and the student's major discipline

**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**

- Biology: 84:021.

**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.

**21 hours**

*Note: 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.
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 Administrator of Individual Studies. The program requires the completion of 124 semester hours, including the General Education requirement of 47 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 two-year, vocational-technical programs as fulfilling one of the three college groupings of courses for the General Studies Major. The Administrator of Individual Studies will provide information about those programs already approved and the methods for submitting such programs for new approval.

Students may not declare a second major 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 5 to 8 for a list of the departments under each academic unit. (See pages 39-40 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:
- Humanities: 68:021; 68:022; 68:192 .................. 11 hours
- Interdisciplinary courses in, or including, the humanities* .................. 9 hours
- Courses in history, from any department .............. 6 hours
- Critical and analytical course ..................... 3 hours
- Participatory course in creative or performing arts .......................... 3 hours
- Electives in any of the above or other humanities areas ........................ 12 hours
- 44 hours

*These courses may include seminars in the interpretation of texts, in philosophy of history, in aesthetics, in a theme or period, in a topic relating the humanities to the natural or social sciences, or other appropriate courses as available.

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 —

- English and Modern Languages:
  - English Language and Literature: 62:034.
  - Languages: 70:110; 70:120.
- Arts (participatory):
  - Applied Music: 54:Nxx (instrument or voice).
  - Art: 60:001.
  - English Language and Literature: 62:070.
- Social Science:
  - Psychology: 40:118.
  - Sociology: 98:060.
  - Anthropology: 99:017.
- Science: 82:175.

Interdisciplinary Studies:

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 administrator and the Individual Studies Board. This program requires the completion of 124 semester hours, including the General Education requirement of 47 semester hours.

Required:
- A coherent, interdisciplinary area of study ........ 30-44 hours
- Undergraduate thesis .................................. 6 hours
- 36-50 hours

(Plus 27-41 hours of university electives or other major or minor credit.)

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 design his or her own major by selecting courses from in several academic departments; 2) to explore 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 Administrator 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 Program Administrator 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 administrator, 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:
- Portuguese or Spanish ......................................................... 5-10 hours
- Spanish (5-10 hours) from: 78:051, 78:052, 78:061, 78:062 or Portuguese (8 hours): 79:050; 79:060.
- Portuguese/ Spanish: 78:071 or 78:072 or 79:071; 78:101 or 79:101 ......................................................... 6 hours
- Two courses from 78:112, 78:142, 78:144, or 79:118 (repeatable when topic changes) .......... 6 hours
- Electives in Portuguese or Spanish ........................................ 3-8 hours
- History: 96:176; 96:180 ......................................................... 6 hours

At least 15 hours in Latin American courses in at least two of the following areas: economics, political science, sociology, anthropology, geography .............................................. 15 hours 46 hours

Students with no language competence will be required to take an additional 5-10 hours of Portuguese or Spanish at the elementary level.
Russian/Soviet Area Studies Major

This major is offered by the College of Humanities and Fine Arts, the College of Social and Behavioral Sciences, and the School of Business.

Required: all of the following language courses ....... 26 hours
Russian: 77:001; 77:002; 77:011; 77:012; 77:101; 77:141.
Required: one of the following literature courses ....... 3 hours
Russian: 77:102; 77:131; 77:132; 77:134.
Required: all of the following social science courses ........... 18 hours
Economics: 92:138. (Note: 92:053 and 92:054 are prerequisites for all 100g-level Economics courses.)
Political Science: 94:164.
Required: two of the following courses .......... 6 hours
Social Foundations: 26:139.
Geography: 97:150 Regional (Soviet) Geography.

53 hours

Note: Russian Area Studies majors may not count the course "Non-Western Cultures: Russia/Soviet Union" for General Education credit.

Russian/Soviet Area Studies Minor

This minor is offered by the College of Humanities and Fine Arts, the College of Social and Behavioral Sciences, and the School of Business.

Required:
All of the following language courses ........... 20 hours
Russian: 77:001; 77:002; 77:011; 77:012.
The following literature course ........... 3 hours
Russian: 77:186.
One of the following history courses ........... 3 hours
History: 96:169 or 96:170.
Two of the following social science courses ....... 6 hours
Economics: 92:138. (Note: 92:053 and 94:054 are prerequisites for all 100g-level Economics courses.)
Political Science: 94:128; 94:164.
Geography: 97:150.

32 hours

Note: Russian Area Studies minors may not count the course "Non-Western Cultures: Russia/Soviet Union" for General Education credit.

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: 31:057 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:

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 Iowa offers a broad curriculum in advanced programs leading to graduate degrees. The nine graduate degrees now offered by the university are:

- Master of Arts
- Master of Arts in Education
- Master of Business Administration
- Master of Music
- Master of Philosophy
- 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 the University of Northern Iowa 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 sixth-year program leading to the Specialist in Education degree. These programs were developed to prepare professionally competent personnel in education—highly qualified teachers, supervisors, administrators, school psychologists, and specialists in various fields for elementary and secondary schools as well as for colleges. The addition of the Ed.D. program, approved by the State Board of Regents in 1982, enables the University of Northern Iowa 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 Master of Philosophy degree was initiated in 1987 for exceptional students desiring a research degree at the master's level. It lacks a curricular component and is based on one-to-one thesis research with an active, creative professor. It is expected to prepare specific students for particular objectives, including additional professional competency and doctoral degrees.

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 advanced-level 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 graduate-level 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 nine colleges and universities of Iowa and Illinois which are participating in the Quad-Cities 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

(Student applicants taking graduate courses at the University of Northern Iowa after receiving 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 the University of Northern Iowa 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 University of Northern Iowa 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 University of Northern Iowa 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.

Non-Degree Status 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. Responsibility for such reclassification rests with the academic department concerned.
   b. An undergraduate grade point average of 3.00 or higher, or 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 who apply for Degree Status on the same basis as students not previously enrolled in the University of Northern Iowa 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 University of Northern Iowa 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.)

Applicants for Master of Philosophy, Specialist and Doctoral degrees must file the GRE scores (Verbal, Quantitative, Analytical and Advanced) with their application for Admission forms in the Registrar's Office.

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.B.A. 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(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 and the Master of Philosophy programs, 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. and the M.Phil. 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 University of Northern Iowa 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 Load. 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 maximum graduate student load limit during the eight-week summer session is nine (9) hours (perhaps taken as three 3-hour courses); the maximum 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(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 University of Northern Iowa thesis or non-thesis master's degree program. The specialist and doctoral degree programs each have different transfer credits 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 Dean of Veterans Affairs 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. Service-related assignments termed intern assistantships are also available.

A full assistantship carries a stipend paid in equal installments over a 10 month period. One semester, summer session, and partial (½, ¾) assistantships may also be awarded. The associated work assignment will not exceed 20 hours per week assisting designated professors in certain appropriate academic functions, including teaching and research. Intern assistantships are available in a few non-academic departments.

A graduate student receiving an assistantship stipend may also receive other forms of university-based financial aid, tuition awards, fellowships or scholarships, as long as the latter do not require services performed by the student, i.e., where such could be considered wages.

A graduate student receiving an assistantship stipend must be enrolled full time (9+ hours) 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

Tuition scholarships are awarded through the Graduate College upon recommendation of departments in which the graduate degree is sought. To be eligible a graduate must be a full time student, have a 3.0+ GPA and must be in good standing. Full or partial tuition scholarships are available. Application forms may be obtained from the Office of the Dean of the Graduate College or the department and completed forms should be filed with the department of choice.

Information about various other 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 from which they intend to do graduate work.

Loans

Qualified students may secure loans from either Perkins (formerly National Direct Student Loan or NDSL), the Iowa Guaranteed Loan Program or Supplemental Loans for Students (SLS). 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 Financial Aid Office.

Part-Time Employment

Graduate students who need part-time employment can contact the Financial Aid Office. 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 Aid Office

Information about assistantships and other sources of financial aid, such as scholarships and loans, may be obtained from the University of Northern Iowa Financial Aid Office, 116 Gilchrist Hall, University of Northern Iowa, Cedar Falls, Iowa 50614-0024. See pp. 22-25.

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
concludes 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 alternations 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 candidacy 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 concerning the nature and content of these examinations.

The departmental examinations are conducted periodically and the student should consult the head of the department as to the time and place. The student will usually take this examination during the first semester of residence.

3. Either the thesis plan or the non-thesis plan has been designated by the student. On several majors, students selecting the non-thesis option must also complete either Professional Core A or Professional Core B. For most of the majors leading to the master of arts in education degree, the student must hold or be eligible for an Iowa Professional Teaching Certificate. Teaching 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. The selection of the 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 earned 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 125

   Master of Business Administration
   No core required.

   Master of Music
   No core required.

   Master of Philosophy
   No core required. See program course requirements pp. 131-132
Non-Thesis Plan

1. The minimum number of hours of graduate credit varies with the major. All include at least 30 semester hours. 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.

- **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.

- **Master of Philosophy**
  - Not available on non-thesis option.

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, be presented in a format acceptable for publication, and be permanently filed in the departmental office.

Other Requirements and Criteria

1. **Scholarship.** A cumulative grade index of 3.00 ("B" average) must be earned at the University of Northern Iowa in all courses 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 pp. 110-111.

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 is 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 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-level 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 (except M.Phil. program) 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. M.Phil. students see p. 132.

**Non-Thesis Plan.** The candidate for the degree on the non-thesis plan is required to take the same examinations required on the thesis plan.
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. 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 University of Northern Iowa 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 and Dissertation Manual, 3rd Edition."

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 total number of hours of research credits permitted for thesis work may vary with the program. Most master's theses (M.A., M.A.E., M.M.) include a six-hour thesis credit requirement. The Master of Philosophy, specialist and doctoral programs may have different research hour requirements. However, in all cases, to earn thesis credit the student registers for the appropriate numbered course (279, 299, 399), usually not more than 3 hours in any semester. The instructor may assign a grade for a semester registration, depending on the progress made, but may assign a grade of "I" for Incomplete if he or she feels the work has not reached the stage 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 RC 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. **Filing 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 20-24 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 submit 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 in 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 Thesis.** 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 non-thesis 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.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Thesis Minimum</th>
<th>Thesis Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum graduate hours required</td>
<td>30*</td>
<td>30-37**</td>
</tr>
<tr>
<td>Minimum hours of credit at University of Northern Iowa</td>
<td>20</td>
<td>20-25</td>
</tr>
<tr>
<td>Maximum usable hours combined in transfer and correspondence credit</td>
<td>10~</td>
<td>10-12~</td>
</tr>
<tr>
<td>Maximum usable hours of correspondence credit (requires special permission to use)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Minimum hours required in courses numbered 200 and above</td>
<td>9#</td>
<td>12##</td>
</tr>
</tbody>
</table>

*Includes (six) 6 semester hours for research.
**Includes at least one research paper. Total hours depends on major chosen.
~Must include six (6) or more hours in one semester or summer session.
#In addition to the six (6) hours research credit for thesis.
##In some departments they may include three (3) hours of xx:299 Research.

Certification and Endorsements

Certification. For approval in some graduate programs, a student must have earned or be eligible for an Iowa Professional Certificate or its equivalent endorsed in an area appropriate to the graduate major. Credit earned in education, psychology, or teaching to secure a teaching certificate as a prerequisite to candidacy for the master's degree may not be used toward the master's degree. 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 Education 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
- 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
- TESOL/Modern Languages
-翻译和解释
- (西班牙语/英语)
- Audiovisual Technology
- Mathematics

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 her/his 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. 110-114.

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 Art 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 in hearing health care. Audiologists graduating from the program will be providing diagnostic and rehabilitative services to the hearing impaired in a variety of settings including the private sector, hospitals, hearing aid dispensaries, public schools, and industry. Recommendation for clinical certification will be made upon completion of the appropriate requirements. The major provides for a non-thesis or thesis option.

Required core:

Communicative Disorders: 51:258; 51:265; 51:270; 51:271; 51:272; 51:273; 51:274; 51:276 25 hours

Required:

Communicative Disorders: 51:255; 51:293; 51:299; 6 semester hours in a related or tool area 12-16 hours
Electives: 2-6 hours

43 semester hours, including the thesis, are required for this major.

In order to meet certification requirements by the American Speech-Language-Hearing Association (ASHA), students must complete the following:

Six (6) semester hours in speech-language pathiology, the specific courses to be chosen in consultation with the student's adviser. Courses may be taken prior to or concurrently with the major sequence, although they are not part of the major sequence.

Twelve (12) semester hours in areas 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 in the major which is counted toward the clinical work required for the Certificate of Clinical Competence in Audiology.

Students seeking endorsement #36 by the Iowa Department of Education must enroll in Human Relations (19:070). In addition, students are required to complete 10 semester hours of course work in professional education and 10 semester hours of practicum in a public school externship.

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 AACS accredited school of business program or are required to complete the following courses, or equivalent courses:

Management: 15:080 or Information Management: 18:070.
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:

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.

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, or Theatre. The major is available on the thesis and non-thesis options.

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.

Thesis Option: Total of 30 hours of course work.

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, with no more than 10 hours from outside departmental course work. Comprehensive examinations are required of all students in this major.

Non-Thesis Option: Total of 32 hours of course work.

Required:
- Communication and Theatre Arts: 12 hours of 200-level courses.
- 20 hours of course work in Communication or Theatre Arts (no more than 12 hours outside the department).
- No more than 10 hours of transfer work or pre-degree status courses.
- 3 hours in bibliography/methods (50:225)
- 3 hours of departmental seminar (50:289)
- 3 hours of departmental seminar (50:289) or research methodology.

Successful completion of comprehensive examinations after completion of 24 hours of course work.

No more than 6 hours of independent work: "readings," "projects," or specialized individual instruction.

No more than 3 hours of workshop credit.

Successful completion of a research paper as described in the University of Northern Iowa Bulletin.

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:
- 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.
Electives — a minimum of 7 hours from the following:
   Educational Psychology: 20:142; 20:230.
   Educational Psychology: 20:235 or
   Measurement and Research: 25:205.

Required Practicum and Internship ............... 9 hours
   Counseling: 29:290 Practicum — Agency Counseling (3 hrs.)
   29:291 Internship — Agency Counseling (1-6 hrs.)
Electives: a minimum of 8 hours, selected in consultation
with adviser .................................................. 8 hours

60 hours

Major in Counseling

The program is designed for persons who plan to counsel in non-
school settings such as churches, industry, mental health agencies
and employment services. Specific areas of interest and the profes-
sional field in which the person plans to work will determine the
supporting course work and the appropriate electives. A teaching
certificate is not necessary for students pursuing this degree.

Required courses ........................................ 43 hours
   Educational Psychology: 20:142 or
   Psychology: 40:142.
   Educational Psychology: 20:230.
   Educational Psychology: 20:235 or
   Measurement and Research: 25:205.

Required Practicum and Internship ............... 9 hours
   Counseling: 29:290 Practicum — Agency Counseling (3 hrs.)
   29:291 Internship — Agency Counseling (1-6 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 Profes-
sional Core A or Professional Core B or a special core arranged by the
student and his graduate committee.

Required:
   Measurement and Research: 25:205 or
   Earth Science: 87:292.
   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 Commu-
nity 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 Com-
mittee may require a candidate to complete additional course work
above the minimum hours specified for the selected option or empha-

sis. 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.

I. 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, 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 hours includ-
ing 9 semester hours of 200-level courses and 6 hours of
   Electives: planned with adviser and subject to approval of Can-
didacy 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. Literature 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 second-
semester, college-level course or by passing a specially
designed examination. Course work taken to satisfy this for-

eign 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 Read-
ing 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 Examina-
tions.

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 follow-
ing 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:**
- Reading and Language Arts: 23:130.
- 6 hours in 200-level literature courses.
- Electives: 6 hours* 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 Community colleges).

**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. Certification in Iowa requires 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 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 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 for this major.
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 History

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 graduate program, the student lacks satisfactory prerequisites. Total hours for the thesis option includes six (6) hours of credit (41:299) for the thesis. A research paper for two (2) hours credit (41:299) is required of those students on the non-thesis plan.

A final comprehensive examination will be required of all students.

Four emphases are offered on this major:

I. Health Promotion/Fitness Management Emphasis

Required:
Measurement and Research: 25:180 or equivalent.
Health: 41:255; 41:272; 41:275; 41:290; 41:293.
Electives as approved by the Graduate Committee.

II. Community Health Education Emphasis

Required:
Health: 41:255; 41:290; 41:293.
Electives as approved by the Graduate Committee.

III. Cardiac Rehabilitation Emphasis

Required:
Measurement and Research: 25:180 or equivalent.
Health: 41:172; 41:255; 41:271; 41:272; 41:275; 41:277; 41:289 (related seminar); 41:295.
Electives as approved by the Graduate Committee.

IV. School Health Education Emphasis

Required:

The additional course requirements for this emphasis will be governed largely by the Iowa Professional Certification requirements.

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 Iowa home economics teaching certificate or the equivalent of an undergraduate major in the graduate emphasis. Students must take a final comprehensive examination, both written and oral.

A reading proficiency in a foreign language is recommended. This is particularly essential for those persons intending to pursue graduate studies beyond the M.A. degree.

Students must take 3-6 semester hours outside the field of history.

Major in 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. Total hours for the thesis option includes six (6) hours of credit (41:299) for the thesis. A research paper for two (2) hours credit (41:299) is required of those students on the non-thesis plan.

Electives as approved by the Graduate Committee.
Major in Industrial Arts

The Industrial Arts Major is available on both the thesis and non-thesis options. A minimum of 30 semester hours is required for the thesis option, and 32 semester hours for the non-thesis plan.

Required for Professional Core A (7-14 teachers):
- Educational Psychology: 20:214

Required for Professional Core B (post-high school teachers):
- Industrial Technology: 33:214; 33:228; 33:270 (3 hours) or thesis; 33:292; 33:297.

Required for Departmental Core (individually planned program):
- Industrial Technology: 33:270 (6 hours) or thesis; 33:292; and program requirements based on students' 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


Educational Media: 24:139; 24:240; 24:260 (2 hrs.) . 8 hours

For endorsement as school media specialist K-12, students must hold or be eligible to hold an Iowa Teaching certificate.

Major in Mathematics

This major requires as a prerequisite a bachelor's degree 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:

Required mathematics education courses:

Required mathematics content courses: at least 10 hours selected from:

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 requirement.
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 reviewed.

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 minimum 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 pages 130-131).

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 M.A. degree, see page 179.

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.
Major in Physical 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. Upon completion of the program, students selecting the Teaching/Coaching emphasis area must have at least 40 semester hours in physical education at the undergraduate and graduate levels combined, exclusive of activity courses. Total hours for the thesis option includes six (6) hours credit (42:299) for the thesis. A research paper for two (2) hours credit (42:299) is required of those students on the non-thesis plan.

A final comprehensive examination will be required of all students.

Three emphases are offered on this major:

A. Teaching/Coaching: This emphasis is designed for those students who plan to teach and/or coach in the school setting.

Required:
- Educational Psychology 20:214 or
- Social Foundations: 26:234 or
- Measurement and Research: 25:265 or
- Physical Education: 42:290.
- Electives as approved by the Graduate Committee.

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. It is available only on the thesis option.

Required:
- Measurement and Research: 25:180 or equivalent.
- Three (3) hours in a related discipline pertinent to the student's area of interest.
- Electives as approved by the Graduate Committee.

C. Cardiac Rehabilitation: This emphasis is designed for those who plan to work in cardiac rehabilitation programs. The prescribed requirements for this program are generally determined by American College of Sports Medicine certification considerations.

Required:
- Measurement and Research: 25:180 or equivalent.
- Health: 41:172; 41:255.
- Electives as approved by the Graduate Committee.

Major in Physics Education

Two emphases are available.

Physics Education — Secondary. The program is for high school teachers and requires Professional Core A or a special core arranged by the student and his or her graduate committee. The total number of hours required (minimum of 30) will depend upon the student's undergraduate preparation. Both non-thesis and thesis options are available but non-thesis is recommended unless the student has a large number of undergraduate credits in physics.

Physics Education — Community College. The program requires Professional Core B or a special core arranged by the student and his or her graduate committee. 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 require 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 or 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 General Psychology

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 M.A. 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 Science
A minimum of 32 hours is required for this major. The student's total number of graduate hours will depend upon his undergraduate preparation. This major requires either a thesis or a research paper.
A student must complete 82:200 or an acceptable substitute.
Detailed information on this major, including directions for procedures to follow in planning an individualized program and in requesting assignment of an adviser, may be obtained from the Dean of the College of Natural Sciences, University of Northern Iowa, 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:
Measurement and Research: 25:205.
Thesis Option (33 hours required):
Science and Science Education: 6 hours of 82:299.
10 hours from the disciplines of biology, chemistry, earth science, and physics.
6 hours of electives from education and science.
Non-Thesis Option (35 hours required):
Science and Science Education: 3 hours of 82:299.
13 hours from the disciplines of biology, chemistry, earth science, and physics.
8 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):
Elementary, Early Childhood, and Middle 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 —
Elementary, Early Childhood, and Middle School/Junior High: 21:141; 21:212.

Requirements in 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 non-thesis 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 100g maybe required by the advisement committee.

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 Sociology
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:
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.

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 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).
Master of Arts Degree

The remainder of the program will be determined by the student's 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 successful research paper; the course will not count toward the 30-32 hours required of this major.

**Major in Speech-Language Pathology**

Requirements for this major include both graduate and undergraduate courses considered essential to certification and the master’s degree. Starred (*) courses will normally have been completed at the undergraduate level; if not, the student and departmental graduate academic adviser will determine how such incomplete requirements will be remedied.

**Required:**

- Measurement and Research: 25:180*.

The student, in consultation with the adviser, must choose courses designed to meet the American Speech-Language-Hearing Association academic requirements for the Certificate of Clinical Competence. Recommendation for clinical certification will be given only upon successful completion of all academic and clinical requirements.

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.

Based on satisfactory completion of an undergraduate degree in speech-language pathology, course work, clinical assignments, and an externship experience will ordinarily take three semesters and one summer. The non-thesis option will require 34 hours plus research for 1-3 hours plus an 8-16 hour externship. The thesis option will require 30 hours plus 6 hours of thesis plus an 8-16 hour externship.

The professional program in speech-language pathology is a program for both undergraduate and graduate courses leading to a Master of Arts degree. The program is designed to prepare students for careers as speech-language pathologists providing remedial services to the speech, language, and hearing handicapped in a wide variety of settings including educational and hospital/clinic settings.

**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:


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:**


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 least a C grade in a second-semester, college-level course or by passing a specifically designed examination. International students must have achieved a Test of 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 language improvement courses at the discretion of the TESOL/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 Education 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 Vocational-Technical Education Supervision and Administration must have credit in the following courses (or their equivalents):

- Emphasis in Vocational-Technical Teaching: 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:**

- 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:**

- Educational Psychology: 20:214.
- 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.
- Economics: 92:103 or 92:104 or 92:135 or 92:160.

Electives as approved by the department from a selected list.

Major in TESOL/Modern Languages

The major is normally available only on the non-thesis basis. A minimum of 32 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:

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:
- Languages: 70:190.
- Plus course(s) approved by the graduate French adviser.

German:
- Languages: 70:190.
- Plus course(s) approved by the graduate German adviser.

Spanish:
- Languages: 70:190.
- 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.
- Plus course(s) approved by the graduate Spanish adviser.

NOTE: International students must have achieved a Test of 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 language development courses at the discretion of the TESOL/Linguistics faculty.

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 M.A. 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: (If 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.

For native Spanish speakers:
- Linguistics: 63:130
- Languages: 70:181.

This program involves three distinct cultures: Spain, Spanish America and the United States. At least two courses (at least one in each of the 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.

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 credit 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:

For native Spanish speakers:

Comprehensive Examinations: A research paper relevant to the content of the program must be approved by the candidate's M.A. committee and filed in the departmental office before comprehensive examinations may 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. Of 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/his
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 hours
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 Counseling
- College Student Personnel Services
- Elementary Principalship
- School Business Management
- School Counseling
- Secondary Principalship

Department of Educational Psychology 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. 110-114.

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 prepara-
tion 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 this program as follows:

A 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.

**Major in Early Childhood Education**

The student must be eligible for elementary or early childhood certification upon completion of this major. In addition to the professional core, the student must complete a curriculum core, required courses in the early childhood specialty area, and electives for a 30-hour (minimum) program.

The program is designed to increase the student’s competence in working in educational programs for children from birth to age 7.

**Major in Education of the Gifted**

The student must have met certification requirements to teach in the elementary or secondary schools upon completion of this program.

The program is designed to improve the student’s competence in working with and providing leadership in programs for gifted and talented children. In addition to the common professional core, the student must complete a curriculum core, required courses in the specialty area, and electives for a 30-hour (minimum) program.

**Major in Elementary Education**

The program is designed to improve the student’s teaching effectiveness in the major areas of the elementary school curriculum.

**Major in Elementary Media**

This major is designed to prepare educational media specialists for a variety of professional positions in educational settings, including school building level, school district level, vocational-technical school, community college, and university. The student must hold certification valid for either elementary or secondary school teaching to meet requirements in Iowa 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.

**Major in Education of the Gifted**

The student must have met certification requirements to teach in the elementary or secondary schools upon completion of this program.
**Elementary Mathematics Emphasis Area** — The student must be fully qualified to teach in the elementary school upon completion of the major. In addition to the common professional core, the student must complete a curriculum core, required courses in the mathematics subject area and electives for a 30-hour (minimum) program.

The program is designed to improve the student's teaching effectiveness and leadership in the elementary and middle school mathematics area.

- **Required curriculum core** ........................................ 8-11 hours

- **Specialty area** .................................................. 9 hours
  - Elementary, Early Childhood, and Middle School/ Junior High: 21:141.

- **Electives** to include a minimum of 24 hours for the emphasis, to be selected with approval of adviser; advanced courses in mathematics recommended .......................... 4-7 hours

**Elementary Science Emphasis Area** — The student must be fully qualified to teach in the elementary school upon completion of the major. In addition to the common professional core, the student must complete a curriculum core, the science specialty, and electives for a 30-hour (minimum) program.

The program is designed to improve the student's teaching effectiveness and leadership in the elementary and middle school science area.

- **Required curriculum core** ........................................ 8-11 hours

- **Specialty area** .................................................. 13 hours
  - Science and Science Education: 82:130.
  - 2-4 hours in advanced science courses.

- **Electives** to complete a minimum of 24 hours for the emphasis; courses should be selected with approval of adviser; advanced courses in sciences recommended .......................... 0-3 hours

**Elementary Social Studies Emphasis Area** — The student must be fully qualified to teach in the elementary school upon completion of the major. In addition to the common professional core, the student must complete a curriculum core, required courses in the social studies specialty area and electives for a 30-hour (minimum) program.

The program is designed to improve the student's teaching effectiveness and leadership in the elementary and middle grades social studies.

- **Required curriculum core** ........................................ 8-11 hours

- **Specialty area** .................................................. 11 hours
  - Reading and Language Arts: 2 hours in an advanced course (23:xxx).
  - Competency required in adolescent psychology.

- **Electives** to include a minimum of 30 hours for the major, to be selected with approval of adviser ........................ 2-5 hours

**Major in Elementary Reading and Language Arts**

This program is designed to prepare teachers specializing in the area of Reading and Language Arts in the elementary school. Persons holding an educational certificate who complete this program qualify for endorsement in English/Language Arts in kindergarten and grades 1 to 6.

- **Required if not completed at the undergraduate level**:
  - One course in American literature.

**Required**:

- Reading and Language Arts: 23:144; 23:210 or 23:212; 23:250; 23:289 (two required); 23:290; 23:299.
- Course work in related areas to a maximum of 8 hours elected from:
  - English literature, linguistics, library science, communication and theatre arts, communicative disorders.

**Major in Middle School/Junior High School Education**

The student must be fully qualified for either elementary or secondary teaching upon completion of the major. In addition to the professional core, the student must complete a curriculum core, required courses in the middle school/junior high specialty area, and electives for a 30-hour (minimum) program.

The program is designed to increase the student's competence in working with the young adolescent. The program of study can be varied (or extended) to fit the student's background and goals.

- **Required professional core** ...................................... 6 hours

- **Required curriculum core** ........................................ 8-11 hours

- **Specialty area** .................................................. 11 hours
  - Reading and Language Arts: 2 hours in an advanced course (23:xxx).
  - Competency required in adolescent psychology.

- **Electives** to include a minimum of 30 hours for the major, to be selected with approval of adviser ........................ 2-5 hours
Major in Reading Education
This program satisfies course requirements for certificate endorsement as a Reading Specialist in kindergarten and grades 1-12. Additional endorsement requirements include holding an original education certificate and evidence of at least one year of experience which included the teaching of reading as a significant part of the responsibility.

Required if not completed at 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 foundations of reading instruction.
Courses in reading and language arts: 23:140; 23:147; 23:192.

Required:
Educational Psychology: 20:214 or Social Foundations: 26:234.
Measurement and Research: 25:205 or other research course.
Reading and Language Arts: 23:238; 23:240; 23:289; 23:290 (2-4 hrs.); 23:299 (2-6 hours); a maximum of 6 hours in related course work.

Major in Secondary Reading
This program is designed to prepare teachers in the areas of developmental, corrective and remedial reading in the junior and senior high school. Persons who complete this program qualify for certificate endorsement in reading in grades 7-12.

Required if not completed at the undergraduate level:
Educational Psychology: 20:116.
Reading and Language Arts: 23:130; 23:132; 23:140; 23:147; 23:192.
English Language and Literature: 62:165.

Required:
Educational Psychology: 20:214 or Social Foundations: 26:234.
Measurement and Research: 25:205.
Reading and Language Arts: 23:134 or 23:212; 23:210; 23:289; 23:290; 23:299 (2-6 hours).
Course work in related areas to a maximum of 6 hours:
Communicative Disorders: 51:106.

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.
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.

Major in Secondary Business Management
This major requires a minimum of 30 semester hours. The student must complete the usual degree and certification requirements and must complete a minimum of one year of successful teaching appropriate to the major prior to graduation. For endorsement in this area the student must have five years of teaching experience, three of which must have been at the elementary level, PK-6.

In addition to the general requirements — Educational Psychology: 20:214 or Social Foundations: 26:234.
Measurement and Research: 25:205.
A student will be required to complete:
Educational Psychology: 20:116.
Practicum in an appropriate area.
Course elective.

Major in Elementary Principals
This major requires a minimum of 30 semester hours. The student must complete the usual degree and certification requirements and must complete a minimum of one year of successful teaching appropriate to the major prior to graduation. For endorsement in this area the student must have five years of teaching experience, three of which must have been at the elementary level, PK-6.

In addition to the general requirements — Educational Psychology: 20:214 or Social Foundations: 26:234.
Measurement and Research: 25:205.
A student will be required to complete:
Educational Psychology: 20:116.
Practicum in an appropriate area.
Course elective.

Major in Elementary Principals
This major requires a minimum of 30 semester hours. The student must complete the usual degree and certification requirements and must complete a minimum of one year of successful teaching appropriate to the major prior to graduation. For endorsement in this area the student must have five years of teaching experience, three of which must have been at the elementary level, PK-6.

In addition to the general requirements — Educational Psychology: 20:214 or Social Foundations: 26:234.
Measurement and Research: 25:205.
A student will be required to complete:
Educational Psychology: 20:116.
Practicum in an appropriate area.
Course elective.

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.
Certificate to teach is not required for this major.

Six hours from:

Certificate to teach is not required for this major.

Major in Elementary Principals
This major requires a minimum of 30 semester hours. The student must complete the usual degree and certification requirements and must complete a minimum of one year of successful teaching appropriate to the major prior to graduation. For endorsement in this area the student must have five years of teaching experience, three of which must have been at the elementary level, PK-6.

In addition to the general requirements — Educational Psychology: 20:214 or Social Foundations: 26:234.
Measurement and Research: 25:205.
A student will be required to complete:
Educational Psychology: 20:116.
Practicum in an appropriate area.
Course elective.

Major in School Counseling
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:
Electives as approved by chairperson.

Major in School Counseling
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 Psychology: 20:142 or Psychology: 40:125.
Educational Psychology: 20:214.
Educational Psychology: 20:235 or Home Economics: 31:252.
Measurement and Research: 25:205.

Required Practicum and Internship — 9 hours
29:290 Practicum — School Counseling (3 hrs.)
29:291 Internship — School Counseling (6 hrs.) — 54 hours

Major in Secondary Principals
This major requires a minimum of 30 semester hours. The student must complete the usual degree and certification requirements and must complete a minimum of one year of successful teaching appropriate to the major prior to graduation. For endorsement in this area the student must have five years of teaching experience, three of which must have been at the secondary level, PK-6.

In addition to the general requirements — Educational Psychology: 20:214 or Social Foundations: 26:234.
Measurement and Research: 25:205.
A student will be required to complete:
Educational Psychology: 20:116.
Practicum in an appropriate area.
Course elective.
Major in General Educational Psychology

This major is planned as follows: to prepare community college personnel to teach pre-professional teacher-education courses; for persons who want to pursue a terminal degree in educational psychology; 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:

Educational Psychology: 20:214;
Measurement and Research: 25:205; and

Required Educational Psychology Core:
Minimum of 9 hours from the following —
Educational Psychology: 20:100 or 20:116; 20:118; 20:139; 20:140; 20:142; 20:151.

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:

Evaluation:
Educational Psychology: 20:193; 20:290.

Major in Teaching

This major is designed to serve the professional needs of experienced 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 Education (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 hours
Component II: Theoretical-philosophical course
work .......................... 8-12 hours
Component III: Advanced academic course work in
one department ................ 8-12 hours

A student may use one of two common professional core courses, either 20:214 or 26:234, to fulfill three hours of the Component II requirements. A program of studies must include a minimum of thirty semester hours.

Department of Special Education

Major in Special Education

The student must be fully certified to teach in special education prior to completing a major in this area.

Required: Professional Core A .................................. 6 hours
Educational Psychology: 20:214 or Social Foundations: 26:234.
Measurement and Research: 25:205.
Required: Special Education Core ......................... 6 hours
Emphasis in Special Education* ......................... 18 hours

*The student may choose one of the following emphases:

Field Specialization Emphasis
Required:
Special Education: 22:299 .................................. 3 hours
Approved electives ........................................... 15 hours
18 hours

Special Education Consultant Emphasis
Required:
Elementary, Early Childhood, and Middle School/
Junior High: 21:221 or 21:270 ......................... 3 hours
Approved electives ......................................... 6-7 hours
18 hours

Work Experience Coordination Emphasis
Prerequisite: 22:151 and a 7-12 Special Education Endorsement.
Required:
Information Management: 18:112 or
Industrial Technology: 33:182 ......................... 2-3 hours
Special Education: 22:254; 22:290 .................... 6 hours
Approved electives ......................................... 9-10 hours
18 hours

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. 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:
Phase II — required:
Also required:
## Master of Business Administration Degree

Graduate study in business at the University of Northern Iowa provides a broad-based, integrated program which emphasizes the functional areas of business 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 applicant'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.

This program 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 33 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:

<table>
<thead>
<tr>
<th>Accounting: 12:262</th>
<th>3 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing: 13:263</td>
<td>3 hours</td>
</tr>
<tr>
<td>Economics: 92:160</td>
<td>3 hours</td>
</tr>
<tr>
<td>Electives</td>
<td>33 hours</td>
</tr>
</tbody>
</table>

Detailed information for the M.B.A. may be obtained from 335 Seerley Hall, School of Business, University of Northern Iowa.

## Master of Music Degree

**Students wishing to take a course 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 the course. Detailed information concerning requirements and procedures will be provided, and specific evidence of previous accomplishments will be reviewed.**

The Master of Music degree is a professional degree designed to prepare the graduate for: 1) a college or secondary school teaching career, 2) a performance career as a professional musician or composer, or 3) further graduate work at the doctoral level. The following majors are offered:

- **Composition**
- **Conducting**
- **Music Education**
- **Music History**
- **Performance**

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, music history. In addition to the common regulations and requirements applicable to all master's degree programs, the following are required for admission to the specific major.

- **Composition majors:** portfolio and, if possible tape recordings of compositions.
- **Conducting majors:** in-person audition and interview.
- **Music Education majors:** in-person interview with Graduate Coordinator.
- **Music History majors:** scholarly paper.
- **Performance majors:** in-person audition (a tape recording would be accepted if the in-person audition would pose undue hardship).

A prospective major must take a written diagnostic examination in the areas of theory and music history, and (if necessary) 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 a student is required to take remedial courses to make up any deficiency in preparatory work, those courses will not be counted toward degree requirements.

Successful completion of a comprehensive examination is required of all students in this degree program. This examination normally will take place after the candidate has completed the course work required 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:**

<table>
<thead>
<tr>
<th>Graduate Music Core</th>
<th>11 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music: 52:221.</td>
<td></td>
</tr>
<tr>
<td>Music Theory: 58:210; 58:211; 58:212.</td>
<td></td>
</tr>
<tr>
<td>One course from the following —</td>
<td></td>
</tr>
<tr>
<td>Specialization</td>
<td>8 hours</td>
</tr>
<tr>
<td>Electives: 11 hours, primarily in the areas of music literature and theory</td>
<td>11 hours</td>
</tr>
</tbody>
</table>

### Major in Conducting

This major requires a minimum of 30 semester hours completed in the following program:

**Required:**

<table>
<thead>
<tr>
<th>Graduate Music Core</th>
<th>11 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music: 52:221.</td>
<td></td>
</tr>
<tr>
<td>Music Theory: 58:210; 58:211; 58:212.</td>
<td></td>
</tr>
<tr>
<td>One course from the following —</td>
<td></td>
</tr>
<tr>
<td>Specialization</td>
<td>11 hours</td>
</tr>
<tr>
<td>Music Techniques: 56:221* or 56:222* (6 hrs.).</td>
<td></td>
</tr>
<tr>
<td>Music Literature: 59:131, 59:140 or 59:142 (3 hrs.)</td>
<td></td>
</tr>
<tr>
<td>Music, Organizations and Ensembles: 2 hours in ensembles* (participation required each semester of residence).</td>
<td></td>
</tr>
<tr>
<td>Electives: as approved by adviser</td>
<td>8 hours</td>
</tr>
</tbody>
</table>

**Notes:**
- *3 hours
- *2 hours
- *1 hour
- *Specialization in Music History
- *Specialization in Performance
- *Specialization in Conducting
- *Specialization in Music Techniques
- *Specialization in Music Literature
- *Specialization in Music, Organizations and Ensembles
- *Specialization in Electives

### Major in Performance

This major requires a minimum of 30 semester hours completed in the following program:

**Required:**

<table>
<thead>
<tr>
<th>Graduate Music Core</th>
<th>11 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music: 52:221.</td>
<td></td>
</tr>
<tr>
<td>Music Theory: 58:210; 58:211; 58:212.</td>
<td></td>
</tr>
<tr>
<td>One course from the following —</td>
<td></td>
</tr>
<tr>
<td>Specialization</td>
<td>11 hours</td>
</tr>
<tr>
<td>Music Techniques: 56:221* or 56:222* (6 hrs.).</td>
<td></td>
</tr>
<tr>
<td>Music Literature: 59:131, 59:140 or 59:142 (3 hrs.)</td>
<td></td>
</tr>
<tr>
<td>Music, Organizations and Ensembles: 2 hours in ensembles* (participation required each semester of residence).</td>
<td></td>
</tr>
<tr>
<td>Electives: as approved by adviser</td>
<td>8 hours</td>
</tr>
</tbody>
</table>

**Notes:**
- *3 hours
- *2 hours
- *1 hour
- *Specialization in Music History
- *Specialization in Performance
- *Specialization in Conducting
- *Specialization in Music Techniques
- *Specialization in Music Literature
- *Specialization in Music, Organizations and Ensembles
- *Specialization in Electives

### Major in Theory

This major requires a minimum of 30 semester hours completed in the following program:

**Required:**

<table>
<thead>
<tr>
<th>Graduate Music Core</th>
<th>11 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music: 52:221.</td>
<td></td>
</tr>
<tr>
<td>Music Theory: 58:210; 58:211; 58:212.</td>
<td></td>
</tr>
<tr>
<td>One course from the following —</td>
<td></td>
</tr>
<tr>
<td>Specialization</td>
<td>11 hours</td>
</tr>
<tr>
<td>Music Techniques: 56:221* or 56:222* (6 hrs.).</td>
<td></td>
</tr>
<tr>
<td>Music Literature: 59:131, 59:140 or 59:142 (3 hrs.)</td>
<td></td>
</tr>
<tr>
<td>Music, Organizations and Ensembles: 2 hours in ensembles* (participation required each semester of residence).</td>
<td></td>
</tr>
<tr>
<td>Electives: as approved by adviser</td>
<td>8 hours</td>
</tr>
</tbody>
</table>

**Notes:**
- *3 hours
- *2 hours
- *1 hour
- *Specialization in Music History
- *Specialization in Performance
- *Specialization in Conducting
- *Specialization in Music Techniques
- *Specialization in Music Literature
- *Specialization in Music, Organizations and Ensembles
- *Specialization in Electives
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 —

Required specializations:
(Music Education — 3 hours); plus 8 hours from one of the following areas ...... 13 hours
A. Choral-General Area:
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. 6 hours
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 8 hours of electives shall be in Research, 52:299.

A maximum of 4 semester hours of applied music (54:1xxx) 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;

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

Master of Music/Master of Philosophy Degree

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;

Specialization ......................... 12-14 hours
Applied Music: 54:2xx (10 hrs.)
Music Literature: 59:120 (2-4 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.

Master of Philosophy Degree Program
This degree is designed for highly motivated and scholarly students seeking a master's degree primarily based upon original research and a thesis. It is available in eight departments (see areas of study below). Some course work may be required for certain candidates but the emphasis is on the completion of a substantial thesis. A rigorous admission policy (see Admission Requirements below) is necessary due to the individualized nature of the degree. This includes the presentation of a written set of plans and objectives (called the prospectus) by the student which must be accepted by a research supervisor, the Graduate Faculty of a department (or its representative[s]), the department head and the M.Phil. committee of the Graduate Council. Each student accepted for the program will be supervised by a single professor who will have the sole responsibility of aiding and assisting the student's progress once the prospectus has been approved. (Exceptions to this may occur in relation to interdisciplinary research in which more than one professor may be involved.) Upon completion of the research and thesis, the research supervisor and duly appointed specialists in the discipline (who may be internal or external to the university) must approve the thesis and conduct an oral defense of it by the candidate.

The M.Phil. degree program is a non-traditional means of completing a graduate degree and is intended for students who will work full-time on it. Other students already launched in a career may also be accepted if they have a continuing interest in a specific area and have demonstrated their academic capability.

Areas of Study
The M.Phil. degree is available in Art, Biology, Communicative Disorders, Educational Psychology and Foundations, English Language and Literature, History, Modern Languages, and Philosophy and Religion. Though other departments offer other types of masters degrees, they are not approved for the M.Phil.
Graduate College Admission Requirements:

Applicants for admission to the M.Phil. program must:

a. Hold a bachelor's degree from an accredited college or university; or
b. Be within 8 semester hours of graduation (4 hours if in the final summer session) from an accredited undergraduate institution and be concurrently enrolled in graduate work, with sufficient undergraduate work to complete the bachelor's degree in the semester or summer session in which application is made; or
c. Obtain a special waiver of the bachelor's degree (such waivers are granted only after approval of the Dean of the Graduate College); and
d. Have an undergraduate or prior graduate grade point average of 3.5 or higher on a 4.0 scale; and
e. GRE scores on the verbal, quantitative and analytical sections having a minimum combined score of 1500, and a minimum score of 450 on any one section. The GRE Advanced Test (as available) in the area of the thesis (or in an approved area in the case of interdisciplinary programs), must also be completed with an acceptable score level.
f. Evidence of a strong curricular background, including transcripts, indication of honors, and submission of honors papers (if any),
g. Provide two letters of reference from qualified scholars in the discipline of interest.
h. Provide a detailed prospectus (see below) that lists goals and objectives, a thesis topic in some detail and an indication of the graduate faculty member under whose supervision the research is to be accomplished.

Departmental Admission Requirements

Academic departments may establish additional requirements for degree status admission. Students should contact the appropriate academic department for information concerning such requirements.

The student will be expected to meet the normal requirements for master's degree programs (see page 111) on the thesis plan. These include scholarship, recency of credit, correspondence, workshop and other credits, thesis (including filing) and residency. Slight modifications occur in the following areas.

Transfer credit. Transfer credits earned at another institution may, when necessary, be entered on the student's permanent University of Northern Iowa record at the discretion of the appropriate departmental agencies, but these will not be counted as part of the program of study.

Research credit. Except where specific courses are prescribed by the research supervisor and appropriate departmental agencies, registration in an M.Phil. program will be for xx:286 or xx:289 as research credit.

Candidacy. The same requirements apply for this degree as for other master's degrees listed in the current University of Northern Iowa Bulletin, except: there is no required departmental candidacy examination (the strict admissions policy substitutes for this); the thesis option is required; and the research supervisor replaces the departmental committee.

Examination. The student will be expected to pass an oral defense of the thesis as administered by the research supervisor and duly appointed internal and/or external examiners, at times in advance of the expected graduation date.

Application for Graduate Study

Inquiries

Students interested in the M.Phil. degree must be admitted to graduate study. Inquiries regarding admission may be addressed to the Office of the Registrar and general information concerning the M.Phil. degree may also be obtained by writing or calling the department of interest or the Graduate College office.

Students who meet the requirements may consult with departmental supervisors and complete their prospectus before initiating formal enrollment procedures, or they may initiate an application for admission through the Registrar's Office while continuing a dialogue with the appropriate department. In any case, the program must be approved by the department before the admission process is completed and class enrollment begins.

How to Apply

Application Form

Students who wish to earn graduate credit at the University of Northern Iowa must file an Application for Admission to Graduate Study form with the Office of the Registrar. Application forms may be obtained from the Registrar's Office or from the Graduate College Office.

Application Dates

Application for admission to the program leading to the Master of Philosophy degree must be made at least two months in advance of the university's start of classes (approximately June 15 for fall semester, November 15 for spring semester, and April 1 for summer session). A much earlier date is preferred, particularly if financial aid is being sought.

Graduate Record Examination

Students applying for admission must forward to the Registrar their scores on the Graduate Record Examination Verbal, Quantitative, and Analytical Aptitude Tests, and, in most cases, the Advanced Test appropriate to the department in which they expect to pursue the M.Phil. degree. Graduate Record Examination scores must be filed with the student's initial application.

Unlike other master's degree programs, the applicant for an M.Phil. degree is judged not only on the basis of scholarly qualifications and acceptability to a department, but also upon the initial prospectus. The latter describes both how the research master's degree (M.Phil.) and the particular proposed research problem and supervisor will meet the educational and career objectives of the applicant. Upon appropriate recommendations of the research supervisor and department head, the M.Phil. Committee of the Graduate Council recommends or rejects the potential M.Phil. prospectus. The Graduate Dean communicates this decision to the department for appropriate action.

M.Phil. Prospectus

The department and the M.Phil. Committee will make their evaluations solely upon the information presented in the prospectus. Letters of recommendation are not to be included. The applicant is advised to describe the proposed project concisely, yet completely, clearly. The prose, quality and appearance of the prospectus should be consistent with the highly selective nature of this program.

The several parts of the narrative should describe the goals and objectives (including why a more traditional master's program won't meet the objectives) and details of the actual or potential topic indicating significance, methods, qualifications, and time frame. Additional details may be furnished by the department on request.

Each candidate's program will be completed with the help of the departmental supervisor prior to the initial registration. Early application and consultation is mandatory.
Outline of Organization and Requirements for Master's Degrees, University of Northern Iowa

<table>
<thead>
<tr>
<th>Master of Arts in Education</th>
<th>Master of Arts</th>
</tr>
</thead>
</table>

**A. Purpose and Objectives**

1. Preparation of school service personnel
   a. administrators
   b. supervisors
   c. counselors
   d. school psychologists

2. Advanced preparation of elementary and secondary teachers

3. Preparation of community college teachers

**B. Program Options**

1. Thesis plan
2. Non-thesis plan

**C. Eligibility for Candidacy**

1. Unconditional admission to graduate study
2. General graduate examination(s) and dept. candidacy examinations passed
3. Hold or be eligible for Iowa Provisional Certificate or equivalent*

**D. Program Requirements**

1. On the non-thesis plan: at least one research paper approved by the department and filed in the department office
2. On all majors:
   20:214 Foundations of Instructional Psychology — 3 hrs.
   or
   26:234 Philosophy of Education
3. On some majors: teaching experience as specified

---

*Except for majors in College Student Personnel Services, General Educational Psychology, and School Business Management.

**Students completing Professional Core B with appropriate courses in one or more subject areas may be recommended for Iowa Community College certification.

**Master of Business Administration** — See p. 130 for specific information.

**Master of Music** — See pp. 130-131 for specific information.

**Master of Philosophy** — See pp. 131-132 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. 134-135).

**Major in Science 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 specialist'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 University of Northern Iowa 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 post-B.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 include 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 —
8x:299 Research (3-6 hrs.)

Required Internship: 3-4 hours —

Required education: 7-9 hours —
Educational Psychology: 29:214 or Social Foundations: 26:234.

Two of the following:

Additional hours, if required, may be selected from:
- any course listed above but not required;
- any 100- or 200-level mathematics, computer science, or science course;
- Educational Psychology: 20:191;
- Educational Media: 24:205;

**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 Psychology and Foundations**
- School Psychology
- **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 examination:
(a) the Aptitude Test of the Graduate Record Examination, (b) Professional Education Examination, and (c) Departmental Examination.

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 her/his department, head 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 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).

Hour of Credit. A student must earn a minimum of 30 semester hours of graduate credit beyond the master's degree. Credit earned in excess of that required for the master's degree may be applied toward the 30-hour requirement if that credit is earned during the final period of enrollment for the master's degree.

Certain limitations on the amount and kinds of credit must be observed:

200-Level Credit. A student must earn at least 24 semester hours of credit in courses numbered 200 or above, counting both the master's and the post-master's work but not counting any Research credit.

1. Research Credit. The provisions regarding research credit are the same as those for the master's degree and in addition to the amount of such credit used toward the master's degree. (See p. 113.) 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 post-master's work may be applied toward the degree of Specialist in Education.

4. The regulations regarding credit in correspondence courses, and radio and television classes are the same as those for the master's degree. (See p. 113.)

Scholarship. A cumulative grade index of 3.00 (B average) must be earned at the University of Northern Iowa in all classes 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 pass a written comprehensive examination. If required, it should precede the oral examination.

Thesis. A student who did not complete a thesis for the master's degree must complete one for the specialist's degree. A department may require a student who has written a master's thesis to write a thesis for the specialist's degree also. The thesis must be presented in the style and form prescribed for the master's thesis. It must have the approval of the thesis committee and the Dean of the Graduate College.

The work on a thesis will normally be considered to involve about six (6) semester hours of credit. To earn this credit, a student registers for Research and usually not in one block. The instructor will assign a grade for a semester's registration in Research based upon the progress made, but may assign 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 not be made until the thesis is near completion. The Dean of the Graduate College may authorize an extension of time for the completion of 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 RC will be changed to an F (Failure).

Completion of the thesis project occurs when the thesis has been approved by the thesis committee and the Dean of the Graduate College.

The Dean of the Graduate College will appoint three members of the Graduate Faculty as an advisory committee to guide the student in selecting and completing an appropriate thesis project.

Filing of Thesis and Abstract of Thesis. The same regulations apply as for the master's degree. See p. 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. 114.

Requirements for Various Majors

Course work requirements for the Specialist in Education Degree are defined in terms of a two-year graduate program, including work taken on the master's degree. A minimum of 60 semester hours is required for completing the program.

Worksheets giving complete details of the various majors and emphases are available in the offices of the departments in which the majors are offered.

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 within 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.


Required:

Educational Psychology: 20:214 or

Reading and Language Arts: 23:210; 23:212; 23:238; 23:289;
23:290; 23:289 (Administration and Supervision of Reading Pro-
grams); 23:290 (Supervision of School Reading Programs).

Measurement and Research: 25:205.

A course in curriculum development.

Two 200-level courses in educational psychology or learning.

Six (6) semester hours of approved electives.
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:
- Educational Psychology: 20:214 or
- 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:

General requirements:
- Educational Psychology: 20:214.
- Plus 8 semester hours of non-professional course work.

Required:

Major in Elementary Principal
The student must hold a certificate to teach in the elementary school and must have successfully completed one year of teaching at the elementary level prior to completing the degree. (Check endorsement requirements.)

General requirements:
- Educational Psychology: 20:116.
- Educational Psychology: 20:214 or
- Eight (8) semester hours of course work outside the major.

Required:

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.

Required:
- Educational Psychology: 20:100 or 20:109 or 20:116.
- Educational Psychology: 20:142 or
- Psychology: 40:125 or 40:142.
- Elementary, Early Childhood, and Middle School/Junior High Education: 21:152.
- Special Education: 22:150.
- Measurement and Research: 25:181 or
- Psychology: 40:149.
- Social Foundations: 26:120.
- Psychology: 40:008; 40:118.
Doctor of Education Degree

This program, approved in 1982 and initiated in 1983, is intended to provide practicing educators the opportunity to continue their study and earn the terminal professional degree in their field. The Ed.D. degree requires a minimum of 60 semester hours of credit beyond 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 Advanced 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 supervise educational programs for children and adult learners. (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 scholar-practitioners to assume leadership roles in reading-language arts programs. (For more information, contact the Head, Department of Curriculum and Instruction.)

School Psychology. 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.)

Special 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 other agencies that serve disabled individuals. (For more information, contact the Head, Department of Special Education.)

Admission to Doctoral Study

Initial Admission

Formal application to doctoral study should be made to the Registrar at the University of Northern Iowa. Concurrently, a separate application 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 an applicant must submit completed application forms, transcripts of all undergraduate and graduate work, three letters of recommendation and meet the requirements enumerated below. Additional criteria may be required by the area of intensive study since some previous specialization work is presumed.
Doctor of Education Degree

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 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 will be appointed for each student. In most instances, the adviser 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 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 (C+, C, 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 adviser will make recommendations regarding the applicability of transfer credit.
4. Residence Credit. Following admission to candidacy, the candidate shall be enrolled for a minimum of 24 semester hours of on-campus 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 Load. The maximum graduate load during an academic year semester is fifteen hours; for the eight-week summer session, nine 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 100g level (upper level undergraduate and lower-level graduate) may apply toward this program of study.
7. Examinations. 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 her/his program of study exclusive of dissertation credit.
      2) The examination, prepared and evaluated by the candidate's doctoral committee, will be administered in written form.
      3) The candidate should have satisfied the evidence of the 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.
   Post-Comprehensive Registration: Doctoral students who have completed all of their program but the dissertation, and who have passed their comprehensive exam must be continuously registered until the degree is completed. Students reaching this stage will be automatically registered for 01:300, the post-comprehensive “course” registration number, and billed at the rate of $60/term (fall/spring).
   b. Doctoral Dissertation Examination. Upon completion of her/his 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 her/his adviser, should make arrangements to present the dissertation proposal to the doctoral committee as a group. The membership of the committee will include one member from outside the College of Education appointed by the Graduate Dean. 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 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.


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 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 and Dissertation Manual, 3rd Edition," for the amount of each of the above fees.

   The binding, microfilming, and copyrighting fees must be paid at the University of Northern Iowa 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.

1. **Professional Common Core** — 18 hours.

2. **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 hours 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

3. **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 Iowa 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 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 careers:

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 university-level 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 educational 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 number of years of professional-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 Admissions 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 Admissions 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 nine (9) 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.
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 C, and courses in which the grade earned is below 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. All students in doctoral programs are required to be continuously enrolled each academic term (excluding summer school) following successful completion of the doctoral comprehensive examination. A minimum registration fee of $60 will be assessed to those not otherwise registered.

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 nine (9) 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(g) and 200 level require activities for doctoral students beyond those required of pre-doctoral students.
Doctor of Industrial Technology

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 forward, 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 Examination. The Departmental Candidacy Examination for the DIT degree program is termed the Personal Career Development Plan. It is based on the candidate’s career goals and will define the planned program of study. It will also serve as a basis for self evaluation, faculty advisement and for the pursuit completion of the candidate’s degree program. The content of the Personal Career Development 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 committee.

c. Comprehensive Examinations. Successful completion of both oral and written comprehensive examinations is required for the DIT degree program. Comprehensive examinations are prepared and evaluated by the student’s faculty advisory committee. Students should consult with their advisers about the appropriate time to apply to take the comprehensive examinations.

Post-Comprehensive Registration: Doctoral students who have completed all of their program but the dissertation, and who have passed their comprehensive exam must be continuously registered until the degree is completed. Students reaching this stage will be automatically registered for 01:300, the post-comprehensive “course” registration number, and billed at the rate of $60/term (fall/spring).

d. Dissertation 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 committee after the dissertation has been presented to the faculty advisory committee in final form.

8. Publication. Before being allowed to submit a dissertation proposal the student must submit for publication at least one scholarly 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 final copies of the accepted dissertation are required to be delivered to the Office of the Graduate Dean no later than two weeks before graduation. The original and two copies of the dissertation must be on 16 pound (minimum weight), 100 percent rag-content, white paper; erasable paper is not acceptable.

10. Abstracts of Dissertation. Three 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 400 words in length. Please see the “Thesis and Dissertation Manual, 3rd Edition” (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 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, 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 and Dissertation Manual, 3rd Edition” for the amount of each of the above fees.

The binding, microfilming, and copyrighting fees must be paid at the University of Northern Iowa’s 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 64 semester hours of credit must be completed beyond the master’s degree. At least 52 hours of these credits must be earned at the University of Northern Iowa. At least 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 12 semester hours will be granted for the successful completion of the dissertation. All dissertation research credit is recorded as Research Continued (RC) 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 semester.

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 hrs.); 33:376 (3 hrs.); 33:377 (3 hrs.); 33:378 (3 hrs.).

b) Seminars —
   Industrial Technology: 33:282 (4 hrs.).
   (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/ Applications — Measurement and Research: 25:180 (3 hrs.).
   Industrial Technology: 33:292 (3 hrs.).
   Graduate-level computer programming and/or applications course (3 hrs.).

d) Internship —
   Industrial Technology: 33:388 (6 hrs.).

e) Dissertation —
   Industrial Technology: 33:399 (12 hrs.).

Supporting 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 always 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 those 100-level courses whose numbers are followed by a “g” provide graduate credit, e.g., 94:149(g). In all courses of the 100(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(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. Under-graduates seeking admission to graduate courses must secure the permission of the head of the department offering the course. Courses numbered 200 taken as an undergraduate cannot later be used for an advanced degree unless the student was eligible to earn graduate credit. See page 58.

Courses 300-399 are primarily designed for doctoral students. Students are classified as follows:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Earned Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>less than 30</td>
</tr>
<tr>
<td>Sophomore</td>
<td>30-59</td>
</tr>
<tr>
<td>Junior</td>
<td>60-89</td>
</tr>
<tr>
<td>Senior</td>
<td>90 and over</td>
</tr>
</tbody>
</table>

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 Co-op experience. May be repeated for a maximum of 12 hours credit. (See page 56.)

086, 186, 286 Studies in “——” — Courses to be offered by departments for specialized work not covered by regular courses. Credit and topic for “study” to be given in Schedule of Classes.

09C, 19C, Open Credit — 1-6 hrs. (See page 56.)

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 pages 56-57.)

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

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

289 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 113, 135, and 142.

300 Post-Comprehensive Registration

Individual Studies Program

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

192 Exploratory Seminar — 1-3 hrs.
196 Interdisciplinary Readings — 1-3 hrs.
197 Undergraduate Thesis — 3-6 hrs.
198 Individual Study Project — Hours arranged by Individual Studies Director. (See pages 10-11 and 103-104 for additional information.)

Guide to Course Numbers

Alphabetical Order

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Accounting</td>
</tr>
<tr>
<td>99</td>
<td>Anthropology</td>
</tr>
<tr>
<td>60</td>
<td>Art</td>
</tr>
<tr>
<td>84</td>
<td>Biology</td>
</tr>
<tr>
<td>89</td>
<td>Biology at Lakeside Laboratory</td>
</tr>
<tr>
<td>86</td>
<td>Chemistry</td>
</tr>
<tr>
<td>71</td>
<td>Chinese</td>
</tr>
<tr>
<td>50</td>
<td>Communication and Theatre Arts</td>
</tr>
<tr>
<td>51</td>
<td>Communicative Disorders</td>
</tr>
<tr>
<td>81</td>
<td>Computer Science</td>
</tr>
<tr>
<td>29</td>
<td>Counseling</td>
</tr>
<tr>
<td>87</td>
<td>Earth Science</td>
</tr>
<tr>
<td>92</td>
<td>Economics</td>
</tr>
<tr>
<td>19</td>
<td>Education, Interdepartmental</td>
</tr>
<tr>
<td>27</td>
<td>Educational Administration</td>
</tr>
<tr>
<td>24</td>
<td>Educational Media</td>
</tr>
<tr>
<td>20</td>
<td>Educational Psychology</td>
</tr>
<tr>
<td>21</td>
<td>Elementary, Early Childhood, and Middle School/Junior High</td>
</tr>
<tr>
<td>62</td>
<td>English Language and Literature</td>
</tr>
<tr>
<td>72</td>
<td>French</td>
</tr>
<tr>
<td>97</td>
<td>Geography</td>
</tr>
<tr>
<td>74</td>
<td>German</td>
</tr>
<tr>
<td>41</td>
<td>Health</td>
</tr>
<tr>
<td>44</td>
<td>Health, Physical Education, and Recreation, Interdepartmental</td>
</tr>
<tr>
<td>96</td>
<td>History</td>
</tr>
<tr>
<td>31</td>
<td>Home Economics</td>
</tr>
<tr>
<td>68</td>
<td>Humanities</td>
</tr>
<tr>
<td>69</td>
<td>Humanities and Fine Arts, Interdepartmental</td>
</tr>
<tr>
<td>00</td>
<td>Individual Studies</td>
</tr>
<tr>
<td>33</td>
<td>Industrial Technology</td>
</tr>
<tr>
<td>18</td>
<td>Information Management</td>
</tr>
<tr>
<td>66</td>
<td>Journalism</td>
</tr>
<tr>
<td>70</td>
<td>Languages</td>
</tr>
<tr>
<td>35</td>
<td>Library Science</td>
</tr>
<tr>
<td>63</td>
<td>Linguistics</td>
</tr>
<tr>
<td>15</td>
<td>Management</td>
</tr>
<tr>
<td>13</td>
<td>Marketing</td>
</tr>
<tr>
<td>80</td>
<td>Mathematics</td>
</tr>
<tr>
<td>25</td>
<td>Measurement and Research</td>
</tr>
<tr>
<td>08</td>
<td>Military Science</td>
</tr>
<tr>
<td>52</td>
<td>Music</td>
</tr>
<tr>
<td>54</td>
<td>Music, Applied</td>
</tr>
<tr>
<td>57</td>
<td>Music Education and Methods</td>
</tr>
<tr>
<td>59</td>
<td>Music Literature</td>
</tr>
<tr>
<td>53</td>
<td>Music, Organizations and Ensembles</td>
</tr>
<tr>
<td>56</td>
<td>Music Techniques</td>
</tr>
<tr>
<td>58</td>
<td>Music Theory</td>
</tr>
<tr>
<td>65</td>
<td>Philosophy</td>
</tr>
<tr>
<td>88</td>
<td>Physics</td>
</tr>
<tr>
<td>42</td>
<td>Physical Education</td>
</tr>
<tr>
<td>94</td>
<td>Political Science</td>
</tr>
<tr>
<td>79</td>
<td>Portuguese</td>
</tr>
<tr>
<td>40</td>
<td>Psychology</td>
</tr>
<tr>
<td>23</td>
<td>Reading and Language Arts</td>
</tr>
<tr>
<td>43</td>
<td>Recreation</td>
</tr>
<tr>
<td>64</td>
<td>Religion</td>
</tr>
<tr>
<td>77</td>
<td>Russian</td>
</tr>
<tr>
<td>30</td>
<td>Safety Education</td>
</tr>
<tr>
<td>82</td>
<td>Science and Science Education</td>
</tr>
<tr>
<td>26</td>
<td>Social Foundations</td>
</tr>
<tr>
<td>90</td>
<td>Social Science</td>
</tr>
<tr>
<td>43</td>
<td>Social Work</td>
</tr>
<tr>
<td>98</td>
<td>Sociology</td>
</tr>
<tr>
<td>78</td>
<td>Spanish</td>
</tr>
<tr>
<td>22</td>
<td>Special Education</td>
</tr>
<tr>
<td>28</td>
<td>Speech (see Communication and Theatre Arts)</td>
</tr>
<tr>
<td>28</td>
<td>Speech Pathology (see Communicative Disorders)</td>
</tr>
<tr>
<td>01</td>
<td>Teaching</td>
</tr>
<tr>
<td>01</td>
<td>University, Interdisciplinary</td>
</tr>
</tbody>
</table>

145
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 Military (MS I) — 1 hr.
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 models.

08:092. Foundations of Military Organizations (MS I) — 1 hr.
The basic organizations of the military services with emphasis on U.S. Army, divisional level and above; missions and capabilities; plus outline of Army branches, officer and non-commissioned officer duties and responsibilities.

08:094. Military Leadership Skills (MS II) — 2 hrs.
Leadership principles are discussed in class and put to use during a Leadership Weekend. Students analyze the basic Army units, the squad and platoon, and learn how to deploy and control the squad in accordance with the Principles of War. Prerequisite: sophomore standing or instructor approval.

08:095. Military Survival Skills (MS II) — 2 hrs.
Basic survival principles are discussed in class and demonstrated during a Survival Weekend. Concepts taught are: shelter preparation, firecraft, water and food gathering and preparation, land navigation and rescue signaling. Prerequisite: sophomore standing or instructor approval.

08:096. Military Science Leadership Practicum (MS I and II) — 1-4 hrs.
A six-week summer program at Fort Knox, Kentucky, designed to provide leadership experiences to sophomores. Successful completion qualifies students to compete for selection into the ROTC Advanced Course. Prerequisite: sophomore standing or instructor approval.
12 Accounting

Introduction to basic language, principles, and procedures of accounting; emphasis on collection of data for external reporting. Prerequisite: sophomore standing. Registration requires a cumulative University of Northern Iowa GPA of 2.2 or better, or the equivalent.

Emphasis on accounting for the corporate form of business, managerial accounting for decision making, financial statement analysis, and accounting for manufacturing firms. Prerequisite: C- or better in 12:030.

Principles and procedures, particularly as applied in accounting for assets. Prerequisite: 12:031.

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 — 4 hrs.
Uses of accounting data, job order and process cost accounting; cost-volume-profit relationships, budgeting, standard cost systems. Prerequisites: 12:031; junior standing or consent of instructor.

Federal taxes as applied to individual and business; emphasis on individual return, including pay-as-you-go, social security, declaration, and payments. Prerequisite: 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 governmental units. Prerequisite: 12:130.

Introduction to business information and communication systems with an emphasis on how computers are incorporated into business systems; includes computer cases and electronic spreadsheets. Prerequisites: 12:129; 18:070.

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 — 2 hrs.
Continuation of 12:131. Emphasis on cost techniques necessary for management decision making. Prerequisite: 12:131.

12:142(g). Advanced Income Tax — 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.

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 University of Northern Iowa grade point.

12:170(g). Special Problems — Accounting — 1-3 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.

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.

12:262. 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

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.

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

13:143. Retail Merchandising and Management — 3 hrs.
Study of retail management problems from merchandising/mathematical decision-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.


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

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 University of Northern Iowa GPA of 2.2 or better, or the equivalent.

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; 13:171.

Emphasis on problems, decisions, and decision-making processes of marketing managers in developing marketing programs; theoretical aspects will be integrated with practical application. Prerequisites: 13:140; 13:149; 13:151; 13:152; 13:175.

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.

Marketing practices and trends in businesses serving foreign markets. Prerequisite: 13:152.

Full-time internship in a marketing-related business for a minimum of eight weeks. Prerequisites: departmental approval; 2.5 cumulative University of Northern Iowa grade point average; and senior standing.

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.

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.


Application approach to the building of marketing strategies based on market opportunity analysis; segmentation; forecasting; quantitative evaluation; integration. Prerequisites: 13:140; 13:152.

Offered only on ungraded (credit/no-credit) basis. Prerequisite: departmental approval.

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.

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.

Methods of implementing marketing strategy based on detailed empirical decision making. Emphasis on research design and statistical analysis. Prerequisites: 13:140; 13:152.


Study of corporate marketing management concepts and attendant theories, distinguishing characteristics of marketing organizations, and marketing management career opportunities. Prerequisite: senior standing and prerequisite or corequisite: 13:175.

Prerequisites: departmental consent; 3.0 cumulative University of Northern Iowa grade point average; senior standing.

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.

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.

Integrated approach to marketing from managerial viewpoint using economic, quantitative, and behavioral concepts in analyzing and developing framework for decision making and implementing a marketing program. Prerequisites: 13:149; and consent of MBA adviser.

May be repeated for a maximum of 4 hrs. Prerequisites: departmental consent and consent of MBA adviser.

Prerequisites: departmental consent and consent of MBA adviser.

Prerequisites: 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 currently taking 15:151, 15:153, or 13:152.

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. Prerequisite: 80:072 or 80:092 or equivalent.

Application and interpretation of probability and statistics as applied to business problems, design of experiment, descriptive statistics, sampling, estimation, correlation and linear regression. Prerequisite: 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. Legal 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, environmental law, product liability, and consumer protection.

Contracts and sales.

Partnerships, corporations, and commercial paper.

15:104. Law for the C.P.A. Examination — 3 hrs.
Intensive study of business law to prepare accounting students for the law part of the C.P.A. examination. Prerequisites: 15:101; 15:102; qualified to sit for C.P.A. examination.
An in-depth examination of the tools, concepts and theories of financial sales personnel. Prerequisite: 15:151.

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.

Arbitration and Collective Bargaining — 3 hrs.
Collective bargaining: strategies and tactics; issues in collective bargaining; arbitration provisions of the Taft-Hartley Act; the arbitration proceeding. Case problems. Prerequisite: 15:105.

Basic principles and techniques of operations research; includes topics of forecasting, decision, theory, inventory models, linear programming, simulation, network models, and Markov analysis. Prerequisites: 15:020; 15:070; 15:080.

Management 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.

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.

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.

Fundamentals 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 University of Northern Iowa GPA of 2.2 or better, or the equivalent.

Operations Management — 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.

Advanced Financial Management — 3 hrs.
An in-depth examination of the tools, concepts and theories of financial management. Topics covered include: working capital management, capital budgeting, financial theory, and various appropriate analytical tools. Prerequisite: 15:151.

Topics in 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.

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.

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. Prerequisites: 15:151 and junior standing.

Manufacturing Management — 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.

Risk Management and Insurance — 3 hrs.
Fundamentals of risk and of insurance as they apply to financial management. Prerequisite: 15:151.

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.

Quality Management — 3 hrs.

Organizational Behavior — 3 hrs.
Examination of micro and macro issues found within an organization which would include: people, technology, environment, and structure. Prerequisites: 15:070; 15:153.

Staffing — 3 hrs.
Study of personnel selection and placement; includes manpower forecasting, recruiting, interviewing, testing, equal employment opportunity, and affirmative action considerations. Prerequisite: 15:153.

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.

Compensation Administration — 3 hrs.

Management Internship — 1-3 hrs.
Uncompensated work experience in conjunction with an academic project conducted under faculty guidance. May be repeated up to 6 hrs. Offered only on an ungraded (credit/no credit) basis. Prerequisites: departmental approval and 3.0 cumulative grade point average.

Special 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.

Business Policy and Strategy — 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."

Cooperative Education/Internship in Management — 1-3 hrs.
Compensated work experience in conjunction with an academic project conducted under faculty guidance. May be repeated up to 6 hrs. Offered only on ungraded (credit/no credit) basis. (See p. 56.) Prerequisites: departmental approval and 3.0 cumulative grade point average.

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.

Management Information Systems — 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.

Organizational Design — 3 hrs.

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.

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).
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.

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.

This course will provide students with knowledge of the role of information systems within an organization; systems, information and decision theory; information systems applications including decision support; and systems evaluation and selection. Prerequisite: consent of the MBA adviser.

Analysis of current administrative philosophy and practices, their historical foundations; integration of an organization from the administrator’s viewpoint. Prerequisites: 15:153 or equivalent and consent of MBA adviser.

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.

Financial decision 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.

This course will provide students with knowledge of data analysis techniques and research methodology. An emphasis is placed on decision making under uncertainty, sampling; probability distribution and regression. Prerequisite: consent of the MBA adviser.

15:266. Quantitative Decision Making — 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.

Introduction to analysis, design, and management of systems. Prerequisites: 15:070; 15:266; or equivalent; and consent of MBA adviser.

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

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.

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 hours of work experience for each one hour of verified work experience to be applied toward the vocational certification work experience units required. Maximum of 2,000 hours of work experience units may be earned through this course. May be repeated. Prerequisite: approval of department head. Corequisite: employment in approved job.

18:014. Foundations of Business and Vocational Education — 2 hrs.
History, principles, and philosophy of business and vocational education. Prerequisite: sophomore standing.

18:046. Keyboarding — 1 hr.
Beginning course for students with little or no keyboarding/typewriting instruction. Credit/No Credit.

18:047. Typewriting I — 1 hr.
Basic typewriting formatting skills and continuing development of keyboarding 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 typewriting or equivalent.

Theory and methods for teaching shorthand. Prerequisite: ability to type.

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 management, and business applications of the technology. (Same as 15:080.)

18:075. Microcomputer Applications for Business — 3 hrs.
Application and integration of microcomputer software (word processing, database/spread sheets/data communications/operating systems) and the relationship to business. Prerequisites: 18:070; keyboarding experience required.

18:112(g). Coordination Techniques — 3 hrs.
Responsibilities of cooperative vocational education teacher-coordinator in coordination theory and practice; role of coordination, on-the-job learning experiences, selection of training stations, developing training plans, placement of student on the job, and public relations activities. Prerequisite: 18:014 or junior standing.

Basic written and oral communication development through emphasis on writing skills used in business reports, memorandums and letters; will incorporate communication theory. Prerequisite: 62:005.

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 presentations. Prerequisites: 18:113; junior standing.

Emphasis on special factors unique to designing, developing, 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; 18:070.

18:118(g). The Adult Learner in Training and Development — 3 hrs.
A study of the psychological and physiological characteristics of the adult learner 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(g). Human Resources Development — 3 hrs.
A study of human resources development in organizations with emphasis on self understanding, co-worker relationships, and effective supervision 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 system involving use of mechanical, electronic, and photographic methods. Prerequisites: 18:070; junior standing or consent of instructor.

18:130(g). Methods of Training and Development — 3 hrs.
Development of the five technical teaching/training skills and the use of needs assessment, training resources, group strategies, and evaluation. Videotape micro-training will be used for student feedback. Prerequisite: junior standing.

18:160(g). 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 — — 4-8 hrs.
Student to indicate internship area when registering. Prerequisites: junior standing; 3.0 cumulative grade point and consent of department head.
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.

For majors only. Offered only on a Credit/No Credit basis. (See p. 56.)

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.

Develops skills in the measurement and evaluation of business education subject areas. Includes procedures related to assessment, test construction, testing procedures, and data analysis.

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.

May be offered in different areas as indicated in the Schedule of Classes. Prerequisite: teaching experience in area selected or consent of instructor.

May be repeated for a maximum of 6 hours. Prerequisite: 16 hours completed in master's program.

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

Should be taken in student's last semester of graduate study. Prerequisite: departmental approval.

Prerequisite: consent of department head.

Prerequisite: consent of department head.

18:299. Research — 1-6 hrs.
Prerequisite: consent of department head.

19 Education, Interdepartmental

Development of awareness of various societal subgroups, recognizing and dealing with dehumanizing biases (e.g., sexism and racism), and learning 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 in interpersonal relations. Attitudes, skills, and techniques for creating favorable learning experiences for students are stressed. Reserved for graduate students and practicing teachers.

Examinations of issues and problems of concern to educational practitioners from the perspective of educational philosophy, history, and sociology. Prerequisites: 26:220 or 26:234 or 26:235.

Overview of research knowledge base regarding effective instructional practices and their interrelationship in effective schools. Prerequisite: 20:214.

18 Information Management/19 Education, Interdepartmental

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. Dynamics 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.

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: 20:050.

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 Young 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.

Psychological concepts applied to adolescent intellectual, physical, and psychosocial behaviors; designed to improve understanding of, and relationships with, adolescents and their search for identity. Prerequisites: 20:030 or equivalent; junior standing or consent of instructor.

20:118(g). Mental Health 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. Prerequisites: 20:030 or equivalent; junior standing or consent of instructor.
20 Educational Psychology
21 Elementary and Middle/Junior High

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 contexts for discussion in the education of students with learning difficulties. Prerequisite: junior standing or consent of instructor.

A foundation for psychological understanding in the field of accident prevention and behavioral problems. Prerequisite: junior standing or consent of instructor.

20:139(g). Psychology of Personality, Education — 3 hrs.
A thorough investigation of the dynamics of personality, with emphasis on the principles of normal personality structure. Designed for those who seek an understanding of the structure, development, and function of personality. Prerequisite: junior standing or consent of instructor.

20:140(g). Social Psychology, Education — 3 hrs.
An introduction to the 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 Psychology, Education — 3 hrs.
This course deals with psychodynamics. The development of both normal and abnormal personalities is traced with an emphasis on application of sound developmental principles. 20:118 recommended to precede. 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.

Exploration of learning models, integrated with critical review and use of diagnostic test instruments. Development of interpretative skills and adaptations of teaching methods through case study data and clinical experience. Prerequisite: 25:181.

20:173(g). Behavior Disorders in Children — 3 hrs.
Problems of children that 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.

Tutorial experience in multicultural school setting. Collaborative seminar for sharing personal insights and discussion of core readings on cultural pluralism. May be repeated once for credit.

20:188(g). Current Approaches to Multicultural Education — 3 hrs.
Comparison of alternative models of multicultural education and a study of their application in school settings. Prerequisite: junior standing.

20:189(g). Seminar in Educational Psychology — 1 hr.
Provides the opportunity of correlated supervised course work and knowledge in the field of educational psychology. For senior psychology majors and minors. Must be taken twice, one semester hour each during the senior year. May be taken by graduate students with permission of the department. (May be repeated once for credit.)

20:193(g). Research Experience in Educational Psychology — 2-6 hrs.
Research participation, and/or independent supervised research including experience in each of the following: search of the literature; analysis of theoretical issues; design, instrumentation, and conduct of one or two major experiments; analysis of results; and preparation of research reports. Prerequisites: 15 hours in educational psychology or in some other field of psychology and permission of the department. A total of six semester hours of credit may be allowed.

20:194(g). Clinical Experience — 1-4 hrs.
Practice in educational testing, mental testing, interviewing, guidance and counseling, remedial educational procedures, and formulation of follow-up procedures. Prerequisite: department approval.

20:196. Independent Study.

Examination of personal, developmental, and situational factors that influence motive to learn; and the resolution of motivational problems unique to formal educational settings. Prerequisite: minimum of 6 hours of educational psychology or consent of instructor.

A study of the factors involved in designing and implementing effective instructional environments.

20:220. Educational Psychology: 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, developmental, humanistic, and social learning theory). Includes study of noted theorists in each area and educational implications and applications of their work. Prerequisite: 20:100 or 20:109 or 20:116.

Nature of the psychological services in the schools; observation of classroom and activities of various special services personnel. Includes literature of roles, and goals of the school psychologist.

20:241. Topics in Educational Psychology — 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.


Prerequisite: instructor’s consent.

Prerequisite: instructor’s consent.

Supervised off-campus field experience.


20:314. Advanced Educational Psychology — 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 School/Junior High

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.

Experiences, methods and materials for teaching young children. Prerequisites: 20:018; 20:040; 25:050.

21:120. Elementary Classroom Management — 3 hrs.
This course focuses on the skills needed to plan, organize, manage, and evaluate appropriate instruction in the elementary classroom.

21:122. Classroom Management: Middle Level — 3 hrs.
Classroom organization and behavior management compatible with the social/psychological characteristics of young adolescents.

21:123(g). Expressive Arts in the Elementary School — 3 hrs.
Integration of the creative arts: art, music, drama, and media as utilized for strengthening and enriching content across the curriculum of the elementary classroom.

21:130(g). Guidance and Instruction in Early Childhood Education — 3 hrs.
This course will discuss the role of the teacher in guiding young children in their learning activities. Planning and implementing early childhood programs will be emphasized.
21:135(g). Middle Level Socialization and Instruction — 3 hrs.
Instructional strategies and resources for meeting the social/psychological personal needs of preadolescent and adolescent children within the classroom.

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). Applications in Elementary Science Teaching — 3 hrs.
Resources, content background and materials in elementary science with emphasis on applications. Special attention is paid to integrating theory and 21:101 or equivalents.

21:143(g). Applications in Elementary Social Studies Teaching — 3 hrs.
Applying knowledge of current trends, resources, and content as a means of developing, enriching and expanding the social studies curriculum. Prerequisite: junior standing or consent of instructor.

21:145(g). Storytelling — 2 hrs.
Art and techniques of storytelling to enrich the elementary classroom learning experiences.

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.

21:150(g). Middle School/ Junior High School Curriculum — 3 hrs.
Teaching methods, instructional resources, and school organization designed specifically for meeting the unique needs of the preadolescent and adolescent learner in both traditional junior high and middle school settings. Prerequisite: 20:040.

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.

Background for establishing and administering a preschool facility; investigating equipment, supplies, staffing, financing, policy statements, and curriculum planning for day care, nursery school, and kindergarten.

Investigation of current textbook series, trends, teaching materials, and appropriate instructional strategies for contemporary elementary science programs.

Basic methods and materials for teaching the knowledge, skills, attitudes and values in social studies.

21:170. Methods and Materials for the Middle School/ Junior High School — 10 hrs.
Teaching strategies, materials, and school organization for grades 4 through 9 in both the traditional junior high and middle school settings: methods of teaching both the preadolescent and the adolescent. 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.

Current ideas influencing the planning and implementation of curriculum in elementary schools. Prerequisite: 21:101 or department approval.

The role of the classroom teacher in curriculum development projects, focusing on educational change projects, procedures, and product evaluation. Prerequisite: 21:201 or consent of the head of the Department of Curriculum and Instruction.

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 social-psychological factors and logistical factors. Prerequisite: 21:101 or 21:142 or departmental approval.

Various research investigations of examining the content and processes of contemporary curricula. Prerequisite: 21:101 or 21:143 or departmental approval.

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. Analysis 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.

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.

Application of developmental psychology to the scope and depth of science instruction; analysis of strengths and weaknesses of alternative science programs including initial and subsequent costs, facility requirements, and implementation difficulties. Prerequisite: 21:101 or 21:142 or departmental approval.

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.

Educational needs of the gifted and talented child. Emphasis on characteristics, identification, underachievement, counseling, and motivation. Attention to curriculum and organization adaptations. Prerequisites: 20:241 or 26:234; 25:205; plus two years teaching experience and consent of department head.

Trends in educational programming for gifted learners. Prescription implementation and evaluation of appropriate educational intervention strategies.

21:270. Developments in Middle School/ Junior 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.


Special topics listed in Schedule of Classes.


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.

Systems for program evaluation and revision and the dynamics of change processes will be explored.
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 hrs. Prerequisites: 21:352 and consent of instructor.

22 Special Education

Overview of the field of Special Education including historical perspective, characteristics, programs and legal provisions for education of the handicapped.


22:143(g). Teaching Students with Behavioral Disorders, K-6 — 3 hrs.
This course is designed to develop the instructional and behavior management competencies required for teaching children with behavioral disorders. Prerequisite: 22:050. Corequisite: 22:192.

22:143(g). Teaching Students with Behavioral Disorders, 7-12 — 3 hrs.
This course is designed to develop the instructional and behavior management competencies required to teach adolescents with behavioral disorders. Prerequisite: 22:050. Corequisite: 22:192.

22:144(g). Teaching Students with Mild Mental Disabilities, K-6 — 3 hrs.
This course is a kindergarten through sixth grade curriculum, methods and materials course for students with mild mental disabilities and includes the concepts of career vocational education, transition and integration of handicapped students with mental disabilities into "regular" education programming as appropriate. Prerequisite: 22:167. Corequisite: 22:192.

22:145(g). Teaching Students with Mild Mental Disabilities, 7-12 — 3 hrs.
This is a 7-12 curriculum course for students with mild mental disabilities. It will include methods and materials for instruction of students with mild mental disabilities as well as concepts related to career vocational education, transition and integration of these students where appropriate. Prerequisite: 22:167. Corequisite: 22:192.

22:146(g). Teaching Students with Learning Disabilities, K-6 — 3 hrs.
A course dealing with teaching methods for K-6 students with learning disabilities. The course involves both didactic and laboratory experiences found in resource rooms designed for mild to moderate learning disabled students. Prerequisites: junior standing; 22:174; 23:110; 86:134; or consent of instructor.

22:147(g). Teaching Students with Learning Disabilities, 7-12 — 3 hrs.
A course dealing with teaching methods for 7-12 students with learning disabilities. The course involves both didactic and laboratory experiences found in resource rooms designed for mild to moderate learning disabled students. Prerequisites: junior standing; 22:174; 23:110; 86:134; or consent of instructor.

22:150. Mainstreaming the Exceptional Child in Regular Classroom Settings — 2 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: 20:030, 20:040, 25:050.

22:151(g). 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 or equivalent.

22:152(g). Community Resources for Special 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. Prerequisites: 22:050 or 22:152 and consent of instructor.

Modification of physical structures, equipment, materials, and procedures for disabled students with accompanying physical, sensory and/or multiple impairments. Prerequisite: 22:174 or consent of instructor.

This course will be designed to provide instruction in the provision of educational services to the mildly disabled youngster in multidisciplinary programs. It will include current trends and issues for serving these youngsters, basic theoretical and practical approaches, educational alternatives, implication of federal and state statutes and related services, and the importance of the multidisciplinary team providing more appropriate educational programming. Prerequisites: 22:050 or 22:150 and consent of department.

22:167(g). Overview of Education of Students with Mental Disabilities — 2 hrs.
Current and historical educational trends, etiology, and impact of the disability on the child and family. Prerequisites: 22:050 or 22:150; junior standing or consent of instructor.

22:170(g). Educational Management in Special Education — 3 hrs.


22:180(g). Teaching the Multidisciplinary Handicapped K-6 — 3 hrs.
Instructional methods and materials for handicapped functioning at primary level. Emphasis on social and beginning academic skills. Includes teaching mildly retarded, learning disordered, and/or behaviorally handicapped individual. Prerequisites: 22:170; 22:174; 22:192 (tutorial).

22:181(g). Teaching the Multidisciplinary Handicapped 7-12 — 3 hrs.
Emphasis on individual instruction programmed materials, and other techniques to improve academic, social, and vocational skills. Includes teaching mildly retarded, learning disordered and/or behaviorally handicapped pupils. Prerequisite: 22:174. Corequisite: 22:192.

22:183(g). Teaching Students with Moderate Handicaps — 3 hrs.
Instructional methods, materials and assessment for students functioning at moderately handicapped level. Emphasis on functional, age-appropriate, longitudinal curriculum development. Includes teaching students with moderate mental disabilities who may have accompanying physical, behavioral, and/or sensory impairments. Prerequisites: 22:167; 22:174. Corequisite: 22:192 or consent of instructor.

22:184(g). Home, School and Interdisciplinary Relationships in Special Education — 3 hrs.
The development of professional behavior characterized by positive personal interaction with others and effective team skills. Strategies for collaboration with parents, regular and special educators, paraprofessionals, and other individuals in the educational program. Prerequisites: 22:050 or 22:150; junior standing.

22:185(g). Readings in Special Education — 1-2 hrs.
Reading and discussion of current methodological developments and innovations in special education. May be repeated once for a maximum of 2 hours credit.
22:187(g). Teaching Students with Severe Handicaps — 3 hrs.
Instructional methods, materials and assessment for students functioning at a severely handicapped level. Emphasis on functional age-appropriate, longitudinal curriculum development. Includes teaching students with severe/profound mental disabilities, who may have accompanying physical, behavioral, sensory or multiple handicaps. Prerequisite: 22:141 or 22:183. Corequisite: 22:192 or consent of instructor.

22:192(g). Experience in Special Education — 2-3 hrs.
Supervised assessment and teaching experience in special education as listed in the Schedule of Classes. May be repeated in different areas for up to 12 hours. Prerequisite: consent of the instructor.

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.

Promoting techniques, concept teaching, a principle format for analyzing/designing instruction, systematic development of strategies, and in-service training considerations. Principles and techniques of educational diagnosis, instructional analysis, and instructional strategy design as these relate to the consultation process in special education.

Basic assessment techniques for professional working with handicapped adolescent or adult; requires application of these techniques in work with handicapped. Designed for those interested in vocational programming for the handicapped. Prerequisite: 22:151 or consent of instructor.

Administration and use of instruments that measure progress in cognitive, language, motor, social/affective, and self-help developmental domains. Implications for programming and intervening discussed. Prerequisite: 22:183.

22:278. Administration of Special 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 concerning legal provisions for special education.


May be repeated for a maximum of 6 hours.

Individualized exploration of topics germane to the student’s projected objectives. Prerequisite: 22:289 or consent of instructor. May be repeated to a maximum of 9 hours.

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 hrs.
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.

Opportunity to pursue topics of interest. Not applicable to dissertation credit. Prerequisite: 25:205 and consent of instructor.

23 Reading and Language Arts

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.

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 Topics 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). Materials 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.

23:115. Teaching Reading and Language Arts I — 3 hrs.
This course focuses on a reading-language arts model, language experiences in the early years, oral and written composition, and content area language arts.

23:116. Teaching Reading and Language Arts II — 3 hrs.
This course focuses on word identification, listening, reading comprehension, and content area reading.

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). Language Arts Across the Curriculum — 3 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(g). 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(g). 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 learning disabilities. Prerequisite: 23:110 or 23:130.

23:144(g). Literature for Elementary Children — 3 hrs.
An advanced course in children’s literature. Prerequisites: 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(g). Experience in Reading: Tutoring — 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(g). Experience in Reading: Field — 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. Psychology 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 correlative 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.

23:244. Research Design in Reading — 2 hrs.
The evaluation of research designs in readings and construction of a research design for a selected problem.

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.

Seminar topics to be announced in Schedule of Classes. May be repeated for a maximum of 4 hours. Prerequisite: consent of instructor.

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
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
Selection and use of various instructional technologies within a systematic instructional planning framework. Includes the operation of instructional media hardware and software and the design and production of instructional media for classroom use.

24:030. Classroom Computing — 1 hr.
Use of microcomputer technology in the classroom. Emphasis on evaluating instructional software and integrating computer technology with common teaching/learning practices.

Role of educational media and computers in the teaching-learning process. Selection, preparation, utilization, and evaluation of instructional materials and computer software for specific communications. Lab as arranged.

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 Field — 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). Audio Systems — 1 hr.
Audio systems essential for motion picture, slide, and television production. Prerequisite: junior standing or consent of instructor.

24:120(g). Media for Direct 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 hrs.
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.

24:139(g). Graphics Production — 3 hrs.
Assessment of the generation, manipulation, integration, and final formats of type, artwork, and photography applied to printed and projected material. Creative applications of current technology in the development of visuals. Prerequisites: 24:031 or 24:131; junior standing or consent of instructor.

24:139(g). Media Planning and Production — 3 hrs.
Planning steps essential for media production; processes, equipment techniques, and services needed for the production, duplication, and release of media. Prerequisites: 24:030 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 medium 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.

Monochromatic photography including view camera techniques, compositing, 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 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). Multi-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.

Specialized study in independent media projects. Credit to be determined at time of registration; project, credit and evaluation criteria require advance approval of instructor.

Sec. 1. Television. Prerequisite: 24:150.
Sec. 2. Graphics. Prerequisites: 24:931 or 24:131.
Sec. 3. Film. Prerequisites: 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 hrs. for any section.

24:186. Studier in Media — 1-4 hrs.

24:189. Readings in Media — 1-3 hrs.

Evaluation, selection and utilization of programmed materials and machine research and construction of programmed materials. Useful for educational media directors and administrators.
Contemporary theory of human and mass communication, learning, perception, and propaganda as they apply to message design utilizing communication media.

24:232. Selection and Integration of Materials — 1-3 hrs.
Individual experiences providing an overview of curricular resource materials.

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.

Analysis and synthesis for structuring learning environments including learner, task, environmental, and instructional strategy analysis.

Credit to be determined at time of registration; project, credit, and evaluation of criteria require advance approval of instructor.

25 Measurement and Research

Introduction to classroom evaluation instruments; includes preparation and use of teacher-constructed assessment devices and purposes and interpretation of standardized instruments. 25:050 must be taken prior to or the same semester as 25:040. Prerequisites: 20:017; 20:030.

Introduction to statistical methods. Includes graphing techniques, measures of central tendency and variability, correlation, t-tests, one way ANOVA, and chi-square. 2 hr. lab arr. Prerequisite: junior standing or consent of instructor.

Measurement and evaluation in the instructional programs of elementary and secondary schools. Utilization of standardized group instruments in measuring aptitude, intelligence, achievement, interest, and personality. Prerequisite: junior standing or consent of instructor.

Principles of measurement and evaluation applied to the preparation and analysis of classroom appraisal devices. Provides teachers a basis for assessing individual differences, planning instruction and communicating educational outcomes. Designed for students with a minimum background in the foundations of measurement or teaching experience. No credit for student with credit in 25:050. Prerequisite: junior standing or consent of instructor.

25:189(g). Seminar in Education — 2-3 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.

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.

An advanced course in the theory of test construction and practical application of the theory to actual construction and validation processes. Prerequisite: 25:180 and 25:181.

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.

Standardization, cross-validation, administration, scoring, and elementary interpretation of: Stanford-Binet Scale, Weshler Preschool and Primary Scale, Weshler Intelligence Scale for Children, Weshler Adult Intelligence Scale.

Assessment of quantitative and qualitative potentialities of basic IQ tests (Stanford-Binet and Weshler instruments), and use of projective instruments (House-Tree-Person test, TAT, CAT, Rorschach) to complement findings from conventional cognitive measures.

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.


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, 25:205, and 25:281, or departmental approval.

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, 25:205, and 25:281, or departmental approval.

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, 25:205, and 25:281, 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 — 3 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 learning 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.

The course will describe and compare the educational systems of ten Asian countries with that of the Soviet Union. Evaluating Asian and Soviet education from a Western perspective. Prerequisite: senior standing or Russian Area Studies major/minor.

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 alternatives. Prerequisite: junior standing or consent of instructor.

26:143(g). Low-Income Families: Educational Ideologies and Myths — 3 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. Prerequisite: junior standing and consent of instructor.


26:220. Sociological 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. Philosophy 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.

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.

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


27:201. Introduction to Educational Administration — 3 hrs.
Analysis of societal influences upon educational institutions; the role and function of school administrators.

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.

Teacher selection and placement, promotion, tenure, and retirement; administration of pupil personnel facilitating services. Prerequisite: 27:201.

Developing knowledge of basic problems and procedures in organizing elementary/middle school supervision and evaluation programs. Special emphasis is placed on identifying and analyzing effective teaching and performance behaviors.

Developing knowledge and skills for the elementary and middle-level school principal in curriculum leadership and development.

27:221. Administration of the Elementary School — 3 hrs.
Leadership and management roles of elementary and middle-level school principals. Prerequisite: one year of teaching experience and 27:201.

Developing knowledge of basic problems and procedures in organizing middle/secondary school supervision and evaluation programs. Special emphasis is placed on identifying and analyzing effective teaching and performance behaviors.

Developing knowledge and skills for the high school and middle-level school principal in curriculum leadership and development.

Leadership and management roles of high school and middle-level school principals. Prerequisite: one year of teaching experience and 27:201.

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.

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.

Financial support for education; emphasis on Iowa. Prerequisite: 27:201.

Problems of school building planning, operation, and maintenance. Prerequisite: 27:201.

Environmental and personnel factors influencing decision making; specific emphasis on the process, competencies and consequences. Prerequisite: 27:201.

Business administration and budgeting; emphasis on Iowa. Prerequisite: 27:240.

Methods and materials of college teaching to help the college instructor become a better teacher. Useful to junior and senior college personnel.

A seminar-type course organized around the major issues confronting vocational-technical schools, community colleges, senior colleges, and universities in contemporary society.

Basic principles of collective bargaining as they apply to educational administration.

Overview of the historical development, issues, philosophies, and cultural backgrounds of higher education in America.


Seminars are offered on special topics as indicated in the Schedule of Classes.


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 of administration in education or departmental approval.

27:388. Internship in Educational Administration — 1-3 hrs.
Individualized list of selected readings in an area of emphasis, as determined by instructor and student.

Offered on special topics as determined and scheduled by the department. May be repeated for maximum of 6 hours.
27:397. Practicum in Educational Administration — 2-4 hrs.
May be repeated for a maximum of 4 hours.
Research on selected topics of special interest. Not applicable to dissertation credit.

28 Student Teaching
Prerequisite: Completion of Levels I and II of the Professional Education Core.
Provides the student the opportunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include 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.

Prerequisite: Completion of Levels I and II of the Professional Education Core.
Provides the student the opportunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include 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.

Prerequisite: Completion of Levels I and II of the Professional Education Core.
Provides the student the opportunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include 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.

Prerequisite: Completion of Levels I and II of the Professional Education Core.
Provides the student the opportunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include 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.

29 Counseling
29:025. Career Decision Making — 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 Skills — 3 hrs.
Basic understanding of the intricacies of human relationships, including self-awareness 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 Family 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(g). Sex-Role Stereotyping — 3 hrs.
The transmission of sex-role stereotyping and its impact on both boys/men and girls/women. Intervention activities/projects will be examined and developed. Prerequisite: junior standing.

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. Prerequisite: consent of instructor.

29:125(g). Facilitating 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.

Prerequisite: 25:180 or 25:181 or 29:103.
29 Counseling/30 Safety Education

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.

Individual behavior and systems change in the organizational and administrative components in guidance. Prerequisite: one year of teaching experience and departmental approval.

Emphasis on direct participation in groups to develop skills in guidance and counseling. Prerequisite: 29:124.

Stresses principles, procedures, and process of consultation roles. Consultation content provided through integration of affective education programs and skills into learning process. Prerequisite: 29:205 or 29:254.

Theoretical approaches to counseling. Function and present status of counseling theory. A study of each of the predominant theories. Prerequisite: 29:105.

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.

An introduction to the field of college student personnel services with applications of theory to practice.

Instruction in the methods and techniques of counselor supervision with major emphasis in supervisory experiences in a regular school situation.

Integration of counseling theory and counseling process in the design implementation of strategies for changing desired behaviors. Prerequisites: 29:205 or 29:254.

29:252. Relationship and Marriage Counseling — 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 29:227 or 29:254 or equivalent.

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.


Special topics as indicated in the Schedule of Classes.

Prerequisite: consent of instructor.

29:291. Internship — 1-6 hrs.
Prerequisites: 29:290; consent of instructor.


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 hrs.
Individualized list of selected readings in an area of emphasis, as determined by instructor and student.

Offered on special topics as determined and scheduled by the department.

29:391. Internship in Counseling — 1-6 hrs.
Required for certification. 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. Prerequisite: consent of instructor.

Library or data-based research on selected topics of special interest. Not applicable to dissertation credit.

30 Safety Education

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 II — 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. Prerequisite: 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 equipment them to develop 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 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

Clothing as a non-verbal communicator; design principles and elements applied to clothing selection; problems in clothing decisions.

Clothing construction using commercial patterns.

Garment construction using advanced commercial patterns and construction techniques. Prerequisites: 31:010; 31:015 or successful completion of Credit by Examination.

Evaluation, selection, coordination, and promotion of fashion merchandise.

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.

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 86:048 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.

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. Prerequisite: 86:063 or equivalent.

Facilitating personal growth and satisfying interpersonal relationships, using group process to increase awareness and acceptance of self and others.

31:052. Family Relationships — 3 hrs.
Understanding self as a continually developing family member; applying human development concepts to various types of families throughout the life cycle; using group process to examine relationships and communication within families and between them and their environments.

Use of social science theories and research to understand the physiological, psychological, and socio-cultural influences on human identity, development of self, and interpersonal relationships. Emphasis is placed on methodologies for obtaining valid research information and application of such information to facilitating positive individual growth and effective interpersonal relationships.

Psychological, cognitive, social, and physiological factors affecting the human developmental 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.

Male and female identity; establishment of meaningful interpersonal relationships, and definition and role of human sexuality in human relationships.

Introduction to design, analysis of the visual environment, elements and principles of design. No credit if taken after 31:063.

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.

Selection, use and care of equipment used in the home. Application of basic physical science principles.

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.

31:064. Drawing II — 3 hrs.
Drawing as a practical design language; development of simple, fast, and accurate method of drawing; and humanizing 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 choosing and furnishing a living space. No credit if taken after 31:063.
Corequisite: 31:069 for teaching majors.

31:066. Design I — 4 hrs.
Design elements applied to two- and three-dimensional space. Explores problem 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 Interiors 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 furnishings, interiors, and architecture from the mid-19th century to the present and their use in homes; current trends and designers. Prerequisite: 31:067.

31:069. Housing and Home Furnishings Lab — 1 hr.
Corequisite: 31:065 for teaching majors.

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.

Survey of employment opportunities; self assessment, professional ethics, interview techniques and preparation for 31:195 Pre-Professional Experience. Prerequisites: senior standing and consent of instructor.

31:108. Professional Practice: Clothing and Textiles — 1 hr.
Orientation to professional environment of the clothing and textiles field; credentials, interviews, job opportunities, professional ethics, and preparation for the preprofessional experience. Prerequisite: 31:020 and consent of instructor or corequisite: 31:115.

31:109(g). Custom Dressmaking — 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.

31:111(g). Costume Design-Flat Pattern — 3 hrs.
Flat pattern making. Prerequisites: 31:018; junior standing.

31:112(g). Tailoring — 3 hrs.
Tailoring of suits and coats. Prerequisite: 31:018; recommended to precede 31:111; junior standing.

Textile printing, weaving, dyeing, and other decorative processes.

31:114(g). Socio-Psychological Aspects of Textiles and Clothing — 3 hrs.
Origins and functions of clothing and textiles for the individual and society. Hypotheses concerning clothing among cultures and implications for clothing consumption patterns for individuals and families from personal value systems. Recommended to precede this course: 98:058 or 40:008 or equivalent. Prerequisites: 31:010 and junior standing.

31:115(g). Fashion Retailing Concepts — 3 hrs.
Evaluation of strategy of a variety of retail operations in relation to their intended target markets. Computation and analysis of numerical data frequently utilized in retailing operations. Prerequisites: 31:020 and junior standing.

Costume in the western world from ancient times to the present.

31:117(g). Costume Design-Draping — 3 hrs.
Principles of designing with cloth on mannequins. Prerequisites: 31:111.

(1) Textiles, (2) Clothing.

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. Design II — 4 hrs.
Human determines as introduction to the organization of human perception of physical and psychological needs in personal space. Prerequisite: 31:066.

Human determines of design of spaces which solve specific human problems; analysis of the complexities of social functions. Prerequisite: 31:125.
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. Prerequisites: 31:126.

31:130(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. Prerequisites: 31:037 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.

Research activities under direct supervision of Home Economics faculty. Prerequisite: consent of instructor.

31:142(g). 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. Prerequisite: 31:146.

31:143(g). Origin 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 evaluation, and preference surveys as related to the food industry. Prerequisites: 31:036; 84:035; junior standing.

31:145(g). Food Service Systems Management and Administration—4 hrs.
Introduction to food service systems, quality food procurement and production, food service control methods, organization and management, equipment design and facility layout. Prerequisite: 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 86:065 or equivalent.

31:147(g). Food Microbiology—3 hrs.
Microbiological examination of foods, food-borne illnesses, microbial standards and specifications, food preservation, and sanitation. Prerequisites: 84:033; 86:063.

(1) Foods; (2) Nutrition.

31:149(g). 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: 31:130 or 31:137; 84:138; 86:154.

31:150(g). Child and the Home—3 hrs.
The infant through pre-school age; experience with children through a playschool situation. Prerequisites: 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, law, and public policy. A study of family theory as it relates to the public domain. Prerequisite: 31:052.

31:153(g). Family 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: 31:052 or consent of instructor; junior standing.

31:154(g). Family Perspectives 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: 20:030 or 31:055 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-worth, trust, identity, autonomy, and responsibility. Prerequisites: 20:030 or 31:055 or equivalent; junior standing.

31:156. Professional Practice in Family Services—2 hrs.
Evaluation of student's professional role expectations; professional ethics and responsibilities: functioning in diverse cultural/socio-economic settings; preparation for professional experience. For Family Services majors only. Prerequisite or corequisite: 31:153 and consent of instructor.

31:157(g). Family Life Education—3 hrs.
Exploration of issues, methods, and materials in family life education; development of concepts and curricula for various age and special needs groups; qualifications of the family life educator. Prerequisites: 31:052 or 31:057; 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). Contemporary Housing Problems—3 hrs.
Analysis of current U.S.A. housing needs, urban and rural housing problems, roles of private citizens, business and government, and remedial measures. Exploration of housing solutions and trends in other countries. Field trips and individual studies. Prerequisites: junior standing; 31:065 or consent of instructor.

Survey of field opportunities; future professional roles; 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—3 hrs.
External 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.

31:177(g). The American Consumer—2 hrs.
Analytical approach to the consumption of goods and services. Understanding the consumer movement; developing competencies for consumer decisions and actions. 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.

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 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 31:150.

31:181(g). Organizations and Administration of Vocational Home Economics Programs—2 hrs.
History, philosophy, and current status of vocational home economics includes program development and coordination of home economics-related occupations and career education in home economics. Prerequisites: Level 1 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.
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.

31:184(g). Topics — 1-3 hrs.
(1) Home Economics Education; (2) Curriculum Planning. Prerequisite: senior standing and consent of instructor.

Roles of home economics teacher. Planning and evaluating the teaching of home economics including microteaching experience. Prerequisites: Level 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-Professional Experience.
Supervised experience in approved work situation. Transfer students must complete one full semester in residence before being approved for pre-professional experience. Requires written consent of instructor.

31:198. Problems in Education — 1-4 hrs.
(1) Home Economics Education; (2) Curriculum Planning. Prerequisite: senior standing and consent of instructor.

Examination of issues faced by home economists and current trends in the field. Evaluation of industrial consumer products. Prerequisite: 31:057 or consent of instructor.


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.

Laboratory activities in measuring, forming, separating, combining, conditioning and finishing processes.

Examination of the resources commonly utilized in the construction industry—money, materials, methods, processes, personnel—and their management.

33:019. Introduction to Technology Education — 2 hrs.
Historical background, contemporary approaches, trends, and the role of technology education in the total school curriculum, and exploration of career goals.

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.
Survey of the tools, materials, and processes used for the production and reproduction of visual images in industry. This encompasses design/drafting, graphic and audio communications, photography, video technology, and computer graphics.

33:024. Technical Drafting — 4 hrs.
Orthographic projections, auxiliary 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 high school or one semester post-high school mechanical drafting.

Analysis of the techniques utilized in the designing and developing of specifications and working drawings for commercial construction. Prerequisite: 33:018.

Materials of construction; their properties, manufacture, characteristics and application. Prerequisite: 33:018.

Broad areas of energy and power; emphasis on technology involved in power transmission, generation, control, storage, and consumption. Energy utilization by society and the impact on the economy and environment.

Leveling, topographic surveying, triangulation, horizontal and vertical angles, area determination, and other basic construction applications. Includes the layout of buildings and road curvatures; car and use of instruments. Prerequisite: 33:018.

33:036. Power Technology — 5 hrs.
Basic applications of specific principles of energy and power systems. Demonstrations of instrumentation, procedures analysis and reporting.

33:038. Industrial Electricity — 4 hrs.
Study of AC concepts as associated with motors, generators, transformers, control devices, and electrical distribution systems. Prerequisite: 33:036 or consent of instructor.

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.


163
Systems and procedures for constructing commercial and industrial structures. Includes site layout, foundations, structural systems, floor-wall roof systems; exterior and interior finishing. Prerequisites: 33:018; 33:025; 33:027; 33:045; 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.

A consumer-oriented introduction to automotive technology. Includes automotive principles and basic maintenance of the automobile.

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, fundamental concepts and operational 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 (formerly 33:012); 33:170 or 33:172; or consent of instructor.

33:113(g). Tool Design and Drafting — 3 hrs.
Types of tools, basic tool making practices, materials and components. Includes design and development of working drawings of jigs and fixtures for drilling, reaming, 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.

33:117(g). Computer-Aided Drafting — 3 hrs.
Study of various types of industrial computer aided design and drafting systems, fundamental concepts and operational procedures. Drawings of mechanical devices will be produced on microcomputer based CAD systems. Prerequisites: 33:022; Department of Industrial Technology major; 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. Prerequisites: 33:022 or 33:024; junior standing or consent of instructor.

33:119(g). Computer Applications in Industrial Technology — 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 33:146 or 81:025 or 81:070.

33:120. Technology Education Curriculum Planning — 3 hrs.
Development of philosophy, goals and courses for technology education programs for secondary schools. Identification of appropriate objectives, content and student activities. Prerequisite: 18 hours in Industrial Technology including 33:019; junior standing.

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 Technology I — 3 hrs.
Mass production in the woodworking industries; product selection and development; production machines; design of tools, jigs and fixtures. Prerequisite: 33:121 or departmental approval.

Develops concepts of thermodynamics and explores their application to industrial prime movers through lecture and laboratory experiences. Prerequisites: 33:056; 80:048; or consent of instructor.

Basic principles, methods, and equipment pertaining to building component systems (electrical, heating, cooling, and plumbing) related to human health and comfort. Prerequisites: 33:018; 33:050.

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). Metallurgy — 3 hrs.
Basic principles and processes utilized in the making, shaping, and treating of metals and alloys used in the production industry. Prerequisites: 33:019; 86:020 or 86:044; or consent of instructor; and junior standing.

33:134(g). Metallurgy — 3 hrs.
Green sand molding and other metalcasting processes, non-ferrous and ferrous melting and pouring practice, patternmaking and sand technology. Prerequisites: 33:011 or consent of instructor; junior standing.

33:135. Practicum in Material Processing Technology — 1 hr.
Participation in supervision of students in 33:011. Prerequisite: minimum grade of B in 33:011 and consent of instructor.

33:143(g). 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: 33:143; 80:040; 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.

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: 15:080 or 18:070 or 33:146 or 81:025 or 81:070.

33:148(g). 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.

Construction cost analysis techniques for estimating materials, labor, equipment, and subcontracting costs in commercial building construction. Prerequisites: 33:018; 33:025; 33:027; 33:045; 33:050; or consent of instructor.

33:150(g). Screen Printing Technology — 3 hrs.
Screen preparation methods, two- and three-dimensional printing, and color register printing; emphasis on technical information and laboratory experiences. Prerequisites: 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.
33:153(g). Construction Project Planning, Scheduling and Controlling — 3 hrs.
Further development of estimating expertise begun in 33:149 with additional emphasis on planning, scheduling, and controlling of construction projects based on the use of CPM and Precedence Diagramming. Assessment of computer aided scheduling and control systems. Prerequisites: 33:018; 33:025; 33:027; 33:045; 33:050; 33:149; or consent of instructor.

Broad concepts and practices of graphic communications including the printing processes of lithography, screen, gravure, letterpress, and flexography. Involves two-dimensional design and layout, image assembly, photoconversion, 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). Digital 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 in instructions, peripheral devices that constitute a functioning microcomputer. Software design and development, input-output devices, interfacing, and AD/DA conversion included. Prerequisites: 33:156; 81:070, or consent of instructor.

33:158(g). Lithographic Technology — 3 hrs.
Emphasizes photographic-computer type composition, halftone 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.

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.

Photographic fundamentals; emphasis on photographic systems; electrical, optical, mechanical, chemical and light-sensitive component areas. Prerequisite: 33:020 or consent of instructor.

Testing, evaluating, and reporting material characteristics and strength, and probable usefulness in the construction of products. Prerequisite: 88:054 or departmental approval.

A supervised internship to gain practical occupational experience in the specialty area of approval. May be repeated once. Offered on Credit/No 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.
Management concepts in construction: business, methods, company organization, contractual responsibilities, decision making, labor relations, and organizational behavior. Includes problematic analyses of office and field operations. Prerequisites: 33:018; 33:025; 33:027; 33:050; 33:149; or consent of instructor.

Methods of information acquisition, processing and presentation for the conceptualization 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.

The development of the problem identified in the P.L.U.S. Methodology and 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 coating, reinforcing, foaming, joining, fastening. Prerequisite: 33:011 or consent of instructor.

Practical application of research and development techniques in one or more technical areas. Emphasis on application for secondary school technology education programs. Prerequisite: senior standing. Prerequisite or corequisite: 33:190.

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 Iowa.

33:181(g). Trade and Technical Course Construction — 2 hrs.
Basic methods of identifying, analyzing, selecting, and organizing instructional content for vocational trade and technical programs. Prerequisite: junior standing or consent of instructor.

33:182(g). Coordination of Part-time Industrial Education — 2 hrs.
Planning, organizing, developing, and teaching part-time cooperative industrial 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 instructional content for technical programs. Prerequisite: 33:181 or departmental approval.

33:185(g). Methods Improvement in Construction — 3 hrs.
Analyzing the various method improvement techniques and their effectiveness as utilized in construction industry (pre-planning, work sampling, time-lapse photography, etc.). Numerous on-site investigations. Prerequisites: 33:018; 33:025; 33:027; 33:045; 33:050; 33:149; or consent of instructor.

33:187(g). 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(g). Advisory Committees and Conference Leading — 2 hrs.
Principles and practices for organizing, developing, and using the advisory committee in vocational-technical education, utilizing conference procedures and techniques. Prerequisite: junior standing or consent of instructor.

33:189. Student Teacher Seminar — 1 hr.
An intensive course for technology education majors and minors to analyze and synthesize the student teaching experience with courses in the major. Offered only on ungraded basis. Corequisite: 28:138.

33:190(g). Methods of Teaching Technology Education — 3 hrs.
Contemporary methods of teaching technology education detailed unit and less planning and microteaching experiences. Must complete with minimum grade of C prior to student teaching. Prerequisites: 33:019; 33:120.

33:191(g). Methods of Teaching Trade and Technical Courses — 2 hrs.
Basic principles of instruction, instructional organization, methods of presentation, lesson planning and applications of audio-visual media. Prerequisite: junior 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 in product soundness as well as detailed theoretical and experimental description of the different NDE techniques used in industry. Prerequisites or corequisites: 33:132 or 33:172 or consent of instructor: senior standing.

Basic concepts and techniques for evaluating students and programs in vocational-technical education. Prerequisites: 33:181 or departmental approval; junior standing or consent of instructor.

33:194(g). Graphic Arts Estimating and Management — 2 hrs.
Identification of cost centers and the calculation of costs associated with the production of printed products by lithography, screen, gravure, letterpress, and flexography. Also principles and practices of managing a graphic arts business. Prerequisites: 33:150; 33:155; 33:158; 33:187; or consent of instructor.

33:195(g). Managing Technology Education Programs — 3 hrs.
Evaluating, planning, and reorganizing technology education classrooms and laboratories. Equipment maintenance. Planning a safety program. Prerequisite: 33:190; senior standing.
33:198(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. Prerequisite: Junior standing.
33:197(g). Manufacturing Practicum — 3 hrs.
Application of knowledge and skills in manufacturing processes and manage-
ment practices to selected production problems. Prerequisites: 33:144;
33:145; 33:146; or consent of instructor.
Survey of the major topic areas of industrial technology and the profes-
sional 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.
Educational problems selected according to interests and needs of students.
Prerequisite: consent of instructor.
Leaders, movements, principles and curriculum techniques and trends.
33:228. Contemporary Theories — 2 hrs.
Practices and procedures in industry and education. Developments in technol-
yogy.
Problems will involve investigation, application, demonstration, and report-
ing 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.
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 Evaluation 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 hr.
Selected topics 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 Technology — 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.
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.
Principles of methods and evaluation of research in industrial technology.
Individual exploration of possible projects or thesis topics.
Concepts of research and development activity as an element in the industrial,
governmental 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.
Prerequisite: 33:292 or a research methods course.
33:299. Research.
33:375. Historical Developments in Industrial Technology — 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.
Current readings on technology and society, emphasis on analysis and discus-
sion of the issues. Prerequisite: 33:376.
Examines the values and ethics of a technological society and the input of
the technologist into the decision-making process of a technological organiza-
tion. Prerequisites: 33:375; 33:376; 33:377; or consent of instructor.
33:386. Internship — 6 hrs.
Offered in education and industry to provide practical experience in teaching,
supervision, administration, or management. May be taken once in educa-
tional environment and once in industrial environment. Prerequisite: consent
of instructor.

35 Library Science
Note: All 100(g) courses require at least junior standing.
35:010. Library 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, organiza-
tion patterns and services of different types of libraries.
35:112. Library 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
and minors.)
35:113(g). Library 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 descriptor cataloging rules; use of the Dewey Decimal Classification and Sears subject headings; adaptations and pro-
cedures for all formats found in library media centers.
35:121(g). Introduction to the School Library Media Center — 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). Library Materials for Children — 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.
Survey of services available in a library media center, and techniques used in
interpreting services to students and teachers. Prerequisite: 35:121; 35:132 or
35:134.
Principles of organization and administration of school library centers.
Prerequisites: 35:113, 35:121, and at least one other library science course.
Emphasis on applications of computers in libraries for: the acquisitions
indexing, cataloging, retrieval, and dissemination of information and mate-
rials; the instruction of students; and resource sharing networks. Prerequi-
sites: 35:113; 35:115; 35:250.
Development of the book in various forms. History of the alphabet and writ-
ing materials; development of printing; and book publishing.
Traces development of literature for children. Emphasis on significant
authors, illustrators, and titles. Prerequisite: 35:132 or consent of instructor.
Selected aspects of K-12 school library media center materials. Participation in sectional learning experiences based on student needs and interests. Prerequisites: 35:113; 35:132 or 35:134 or consent of instructor.

35:250. Reference — 3 hrs.
Study of basic reference sources, including introduction to question-negotiation and searching strategies and to reference services. Prerequisites: 35:113; 35:115.

Directed study of specific issue or problem based on student’s needs or aspirations. Prerequisite: written consent of department head.

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.

Basic techniques of research methodology—historical, descriptive, and experimental; includes critical evaluation of library/media center studies and their influence on, or application to, services, organization, and administration.


40 Psychology

40:008. Introduction to Psychology — 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.

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.

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. Psychology of Adjustment — 3 hrs.
The study of “normal” adjustment problems encountered in our everyday lives. Topics include: fear and anxiety, sleeping difficulties, sexual adjustment, self control, interpersonal relations, adjustment at work, social adjustment, love, marriage, and parenting. Prerequisite: 40:008.

40:106(g). Psychology 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. Prerequisites: 40:008 and 40:049; junior standing or consent of instructor.

40:110. Psychology 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 Psychology — 3 hrs.
The history of psychological thinking with emphasis on developments since 1850. Prerequisite: one course in psychology or departmental approval; junior standing or consent of instructor.

40:120. Introduction to Developmental Psychology — 3 hrs.
Theory and research methods used in study of development of organisms (especially human); developmental perspective as part of the process of psychological inquiry. Prerequisite: 40:008 or equivalent.

40:123. Introduction to Behavior Modification — 3 hrs.
Behavioral approach to behavior change based upon learning principles. Stresses analysis of ongoing behavior and the means of implementing change in a variety of everyday situations. Prerequisite: 40:008 or equivalent.

Overview of childhood problems ranging from minor problems in adjustment to severely disabling disorders; primary focus on research findings relevant to assessment, etiology, prognosis, and management. Prerequisites: 40:008; plus any one from 20:100, 31:055, 40:120, or equivalent of one of these, or consent of instructor; junior standing.

40:127(g). Introduction to Neurology — 3 hrs.
Introduction to basic nervous system structure and function including the neuron, peripheral nervous system, the senses, the brain stem, neural control of movement and coordination, the forebrain and its specific functions, and brief coverage of methods of study and clinical neurology. Prerequisites: junior standing and consent of instructor.

FORTRAN programming and utilization of library programs and systems. Statistical analysis and related problems common in psychological applications. Prerequisite: one course in statistics recommended. Laboratory. No credit for student who has credit in 80:070.

40:142(g). Abnormal Psychology — 3 hrs.

Primarily operant conditioning procedures but some training in instrumental or 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.

Principles of design, construction, evaluation, and interpretation of psychological tests. No graduate credit for graduate students in psychology. Prerequisites: 40:049; junior standing or consent of instructor.

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 experiences. Prerequisites: 40:045; junior standing or consent of instructor.

40:153(g). Thought and Language — 3 hrs.
A study of complex human behavior with emphasis on cognitive variables intervening between the observable stimulus and response. Includes the topics of language, thinking, concept formation and problem solving with related motivational constructs. Prerequisites: 40:045; junior standing or consent of instructor.

Neurobiological basis of behavior; how human brain receives sensory input, integrates information, and directs responses; neural control of arousal, sleep, dreaming, eating, and sexual behavior; physiological mechanisms of learning, memory, and emotion. Prerequisite: 40:008 or equivalent, or consent of instructor.

40:157(g). Personnel Psychology — 3 hrs.
Processes involved in recruiting, selecting, training, and evaluating employees in all types of organizations; underlying assumptions and current techniques in use. Prerequisites: 40:008 or equivalent; junior standing or consent of instructor.

40:158(g). Organizational Psychology — 3 hrs.
Work motivation, job satisfaction, work group influences, and the structure of work; explores the most influential theories in the field and the most widely used applications of theories. Prerequisites: 40:008 or equivalent; junior standing or consent of instructor.

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.

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.
Psychology / 41 Health

Methods involved in social psychological research. Emphasis on the design and use of questionnaires. Includes some work with computers. Prerequisites: 40:049; junior standing or consent of instructor.

40:163(g). Developmental Psychology — 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 Psychology Laboratory — 2 hrs.
Basic laboratory procedures used by physiological psychologists; students will use procedures to design and implement a short research project. Prerequisite or corequisite: 40:155 or consent of instructor.

40:166(g). Clinical Psychology — 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 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.

Analysis of the factors affecting the aged individual. Emphasis on physiological, cognitive, sensory, personality and interpersonal changes occurring with age. Prerequisites: 40:008 or equivalent; junior standing or consent of instructor.

40:175. Environmental Psychology — 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.

40:199(g). Seminar in Psychology — 1-3 hrs.
Provides opportunity to correlate previous course work and knowledge in the field of psychology. May be repeated for up to 6 hours of credit. Prerequisites: 15 hours in psychology, including 40:945 or consent of instructor.

40:190(g). Pre-Clinical Practicum — 3 hrs.
Field placement in a mental health or social service agency under supervision. Prerequisites: junior standing; 40:142; 40:166; and consent of instructor.

Organization and teaching of psychology; student serves as participant-observer, with advance approval, in any 40:xxx course.

40:193(g). Research Experience in Psychology — 1-3 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 instructor.

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.

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.

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.

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.

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.

Scaling, psychometric methods and selected topics in multivariate analysis. Prerequisite: 40:239.

A comparative study of major personality theories and techniques of personality assessment. Prerequisite: graduate standing in psychology or permission of instructor.

40:262. Personality 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 instructor.


40:397. Practicum.

40:399. Research.

41 Health

41:010(g). First Aid and Personal Safety — 1-2 hrs.
May be offered as (1) Standard First Aid for one credit, (2) Instructor’s First Aid for one credit, or (3) may be offered as a combined course for two (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.

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 Terminology — 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. Cardiac Life Support-CPR — 1-2 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 hour credit; (2) Instructor’s course for one hour credit; or (3) as a combined course for two 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.

Theory of health education, elementary health education curriculum, health education methodology specific to elementary school populations.

41:138(g). Trends and Issues 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. Prerequisite: junior standing.

41:140. School Health 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 preventing health problems, class environment, communicable diseases and control. 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(g). Current Issues 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(g). 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). Changing Health Behavior — 2 hrs.
Analysis of health behavior and current theories and approaches to health-behavior change; emphasis on developing skills necessary to facilitate personal health behavior change. Prerequisite: junior standing.

41:156(g). Health Risk Appraisal — 1 hr.
Use of surveys and inventories to raise awareness of health risks and assess seriousness of health risks. Prerequisite: junior standing.

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, women's health development and maintenance, health and counseling services available for women.

41:163. Human Diseases — 3 hrs.
Systemic approach to study of human diseases emphasizing the chronic/degenerative 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, non-traditional health care and sources of consumer protection in the health marketplace.

41:168. Field 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(g). 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 Injuries — 2 hrs.
Prevention, evaluation, first aid, supportive measures, and care of athletic injuries. Nutrition, facilities, and equipment. Discussion, 1 period; lab., 2 periods. Prerequisite: 42:050 or 42:124 or 84:031.

41:176(g). Health Education Planning and Evaluation — 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; 41:153; junior standing.

41:182(g). Recognition and Evaluation of Athletic Injuries — 2 hrs.
Prerequisites: 42:050 or 84:031; 41:175; 42:151.


41:184(g). Modalities in Athletic Training — 2 hrs.
Physiological effects, indications and contraindications, and the physics of modalities used in injury rehabilitation. Prerequisites: 41:175; 42:050; 42:151.

41:185. Readings in Health 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 guidelines. 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: 41:175; 42:050; 42:151.

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: 41:188.

41:255. Health Promotion/Risk Reduction — 3 hrs.
Survey of models for health promotion, indicators of health risk and approaches to health in the market place.

41:271. Cardiovascular Physiology — 3 hrs.
An in-depth study of the functioning of the cardiovascular 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 42:271.)

Study of the electrocardiogram, including leads in common use, cardiac rhythm and rate, normal and abnormal complexes, electrical axes, and genesis of precordial pattern, bundle branch — blocks, arrhythmias, and infarctions. (Cross listed as 42:272.)

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 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.)


41:289. Seminar.

41:290. Philosophy and Ethics of Health Education — 3 hrs.
Analysis of philosophical and ethical issues in health education.

41:293. Epidemiology 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. Internship 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.

41:299. 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 credit for students admitted prior to fall 1988. May be repeated.

The following six courses provide the development of fundamental 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 Physical Activities — Gymnastics — 1 hr.

42:015. Fundamental Physical Activities — Individual/Dual — 1 hr.

42:016. Fundamental Physical Activities — Team — 1 hr.

42:031. Dance Choreography — 1 hr.
Application of art principles basic to good choreography; advanced technique and composition. Prerequisite: beginning modern dance or equivalent.

42:032. Advanced Folk Dance — 1 hr.
Basic and advanced folk dance skills and dance. Prerequisite: beginning folk dance or equivalent.

A survey of dance history from primitive times to the present with emphasis on the relationship of dance and dance forms to the societies in which they developed and other art forms and the contributions of leading dance personalities.
Structure and function of skeletal, muscular, cardiovascular, respiratory, and gastrointestinal systems.

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: 42:006.

The following twelve courses provide for the development of a high level of performance and comprehensive understanding and knowledge pertinent to the specific activity.

42:016 (Football) recommended to precede.

42:111. Advanced Skill and Coaching Theory — Track and Field — 2 hrs.
42:117. Sports Officials — 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. Practical Coaching — 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. Organization and Administration of Aquatic Programs — 2 hrs.
Administration of programs, personnel, and facilities; includes pool management and maintenance.

Introductory philosophical aspects of sport, psychological and sociological dimensions of competitive sport experiences.

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.

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.

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) wrestling. May be repeated for a maximum of six hours of credit. Prerequisite: department head approval for undergraduates.

Place of dance in the school curriculum; relationships; progressions, and curriculum building.

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.

42:145(g). Development Aspects of Movement Performance — 2 hrs.
How motor skills change with time; nature of factors effecting change; relationship of motor development to total human development; principles of motor development related to teaching motor skills. Prerequisite: junior standing.

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. Prerequisites: 42:050 or equivalent; junior standing or consent of instructor.

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.

Teaching swimming to disabled persons. Discussion, 1 period; lab., 2 periods. Prerequisite: W.S.I. for A.R.C. certification.

Meaning and significance of physical education including historical, philosophical, and scientific considerations. Prerequisite: junior standing.

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.

Concepts of measurement and evaluation; statistical analysis; construction of evaluative instruments; and application of written and performance tests.

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.

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 by department head.
### 42:198. Independent Study.  
2 hrs.  

### 42:200. Computer Applications in Physical Education  
— 2 hrs.  
Microcomputers and their use in physical education and sports medicine. Fundamentals 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 Psychology  
— 3 hrs.  
Current sport psychology 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 Design 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. Biomechanics  
— 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 Physiology  
— 3 hrs.  
Process of scientific inquiry into exercise physiology and the identification of basic principles to be applied for maximum performance without injury. Discussion. 2 periods; lab., 2 periods.  

### 42:255. Motor Learning  
— 3 hrs.  
Study and application of research findings to motor learning and the variables which influence it.  

### 42:271. Cardiovascular Physiology  
— 3 hrs.  
An in-depth study of the functioning of the cardiovascular 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 rhythm and rate, normal and abnormal complexes, electrical axes, the genesis of the QRS complex, bundle branch—blocks, arrhythmias, and infarctions. (Cross listed as 41:272.)  

### 42:273. Contemporary Issues in Physical Education  
— 3 hrs.  
Examination and analysis of continuing concerns and issues in the profession.  

### 42:274. Measurement and Evaluation 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. Cardiovascular Stress Testing  
— 2 hrs.  
Principles of graded exercise testing including test selection, population selection, electrolyte selection, and test interpretation. Experience in test administration. Students are required to practice in the testing of cardiac patients. (Cross listed as 41:275.)  

### 42:276. Supervision of Physical Education  
— 2 hrs.  
Analysis of the current supervisory practices and problems of teaching in physical education.  

### 42:277. 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 41:277.)  

### 42:285. Readings in Physical Education  
— 1-4 hrs.  

### 42:288. Physical Education Seminar  
— 1-3 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. Internship 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  
— 2-3 hrs.  
Practical experience in teaching physical education at the college level.  

### 42:299. Research.  

### 43:010. Introduction to Recreation  
— 2 hrs.  
Orientation to the profession. Includes history, philosophy, trends and opportunities in recreation professions.  

### 43:020. Recreational Leadership  
— 3 hrs.  
Theories, principles, and practices of recreational leadership; techniques and methods of working with individuals and groups.  

### 43:030. Recreation for Special Populations  
— 3 hrs.  
A basic overview of disabilities, recreation programs, modifications, and the role of therapeutic recreation for special populations. Includes observation of therapeutic recreation clinicians.  

### 43:040. Community Recreation  
— 3 hrs.  
Introduction to community recreation through study of interrelationships of municipal, school, park, and agency programs.  

### 43:041. Fieldwork: Community 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.  

### 43:042. Camp Leadership  
— 3 hrs.  
The camping movement. Leadership techniques and laboratory experience. Discussion, 2 periods; lab., 2 periods.  

### 43:110. Recreation Program  
— 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 Principles 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  
— 3 hrs.  
Techniques involved in directing and administering community recreation programs. Prerequisite: 43:114.  

### 43:123. Foundations of Therapeutic Recreation  
— 3 hrs.  
History, philosophy and theories of therapeutic recreation; professionalism; factors influencing service delivery. Prerequisites and corequisites: junior standing in Therapeutic Recreation and 42:050.  

### 43:141. Camp Counseling (Fieldwork)  
— 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 learning experiences to enhance education. Administration and program of school camping.  

### 43:14A(g). 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.  

### 43:150. Management of Non-Profit Youth-Serving Agencies  
— 3 hrs.  
Principles, problems and practices of administration for non-profit youth-serving agencies. Prerequisite: 15:153 or 18:119 or 40:157 or 40:158, or equivalent.  

### 43:151. Financial Administration for Non-Profit Youth-Serving Agencies  
— 3 hrs.  
Theory and practice of budget development and control in non-profit youth-serving agencies. Prerequisite: 12:030.  

### 43:152. Volunteerism in Non-Profit Youth-Serving Agencies  
— 3 hrs.  
Management of volunteers in non-profit youth-serving agencies.  

### 43:153. Fund Raising for Non-Profit Youth-Serving Agencies  
— 3 hrs.  
Theory and practice of fund raising techniques utilized by non-profit youth-serving agencies.
Methods and techniques used in providing therapeutic recreational services to special populations. Includes field experience. Prerequisites: 43:036; 43:123; and verified First Aid/CPR certification.

43:165. Management of Therapeutic Recreation Services — 3 hrs.
Knowledge and techniques for management of therapeutic recreation including legal and financial problems, utilization of human resources, and development of public relations. Prerequisites: 43:030; 43:123; 43:160.

43:165. Leisure 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. Prerequisites: 43:030; 43:041 or equivalent.

43:166(g). Leadership and Aging — 3 hrs.
Role of recreation and leadership in understanding and working with the older adult in community and institutional settings. Prerequisite: junior standing or consent of instructor.

Appropriate activity, leadership, and adaptation techniques; includes field experience. Prerequisites: 31:055; 43:030; 43:123; 43:160.

43:184. Senior Project in Recreation — 1 hr.
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.

43:185. Practicum in Recreation — 1-3 hrs.
Comprehensive fieldwork experience in an area of student's concentration. Prerequisites: 43:189; 500 hours of certified practical experience of which 200 hours must be in area(s) major; current certification in standard First Aid and Basic Rescuer (CPR). Must be taken on ungraded (credit/no credit) basis. Corequisite: 43:184.

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.

44 Health, Physical Education, and Recreation, Interdepartmental

44:010. Personal Wellness — 3 hrs.
Concepts of exercise science, nutrition, stress management, motor behavior, and active use of leisure time. Assessment, application, and participation in lifetime fitness and skill activities.

45 Social Work

Comparative study of social welfare (social insurance, public welfare, charity and philanthropy, social services, and mutual aid) in the United States, and selected nations from five regions of the world as defined by the International Congress of Schools of Social Work (African, Asian, European, Latin American, and North American regions).

Legal aspects, goals, and values of the social work profession, and roles of the social worker in social service agencies. Prerequisites: 45:041 or consent of instructor.

This course is a survey of several American minorities, including Hispanics, Blacks, Asians, and Native Americans. A multi-disciplinary study of these groups will be made with particular emphasis being placed on geographic origins, linguistic traditions and current modes of economic subsistence. An introduction to followways and mores of each group will be given as well. (Same as 98:045.)

Analysis of the principal social work methods — casework, group work, and community organization. Prerequisites: 45:041; 45:042 (may be corequisite); or consent of instructor.

45:121(g). Mental Deviance and Mental Health Institutions — 3 hrs.
Prerequisite: junior standing; 98:060 or consent of instructor. (Same as 98:121.)

45:142(g). Working With Racial and Ethnic Minorities — 3 hrs.
Examination of values and behaviors related to ethnic group membership, social class. Utilization of such knowledge for problem assessment and intervention. Development of ethnic-sensitive practice skills. Prerequisites: junior standing; 45:041; 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.

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: senior standing; 45:041; 45:042; or consent of instructor.

45:163(g). Minority 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.

45:164(g). Human Behavior and the Social Environment — 3 hrs.
Assessment of the applicability of various perspectives of human behavior to social work diagnosis, planning, and intervention; general systems theory as organizing framework. Student should have a strong base of courses in human behavior. Prerequisites: 31:055 or 40:126; junior standing; 44:028 or a course in human biology.

45:171(g). Alcoholism — 3 hrs.
Social, legal, political, and ethical considerations surrounding the use and abuse of alcohol. 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. Prerequisite: junior standing; 45:941; or consent of instructor.

45:172(g). Human Services Administration — 3 hrs.
Major concepts, principles, methods, and theories of administration of human services agencies, public and private. Application of systems theories to administration of these agencies. Prerequisites: junior standing; 45:041; or consent of instructor.

45:173(g). Social Services for the Aged — 3 hrs.
Social work practice and methods of delivering social service to the aged; critical analysis of systems, services, and legislation for the elderly person. Prerequisites: junior standing; 45:041; or consent of instructor.

45:174(g). Social Services in Health Care Settings — 3 hrs.
Includes psycho-social impacts of illnesses; roles and responsibilities of health care personnel. Prerequisites: junior standing; 45:041; or consent of instructor.

Review of the development of family and children's services and practice focusing on current services, programs, and social work practice issues. Examination of policies and legislation, emphasizing how such policies affect family functioning and the delivery of services. Prerequisites: junior standing; 45:041; or consent of instructor.

440 clock hours are required. Eleven credit hours may be earned by: 1) 3 1/2 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. Must be taken on "ungraded" (credit/no credit) basis. Prerequisites: senior standing: 45:042; 45:164; 45:192; 45:195 or 45:195 (may be corequisite: 45:196 (may be corequisite); or consent of instructor.

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; 80:020 or equivalent; 98:080.
Pre requisite: 6 hours in social work and departmental permission. May be repeated only with permission of department.

45:190. Specialized Field Placement — 1-6 hrs.
A Specialized Field Placement can be designed to meet unique situations; beyond 45:184. Students may elect 1 to 6 hours credit; 40 clock hours equals 1 credit hour. Prerequisites: 45:192 and GPA of 2.2 or better. Enrollment by permission of the Field Coordinator only. A student may enroll for a maximum of 18 credit hours in a combination of 45:184—Field Instruction and 45:190—Specialized Field Placement.

Intermediate level, generic social work practice theory and skills; and task-centered 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 learning 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.

In-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). Community and Organizational Practice — 3 hrs.
Advanced study of planned social change within communities and organizations. Emphasis on social welfare agency environments and issues. Prerequisites: junior standing; 45:192; or consent of instructor.

Prerequisite: consent of instructor.

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

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 hr.
Credit for approved work in improvisation (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. Prerequisite: consent of instructor; and junior standing for 50:117.

50:018. Radio Production — 3 hrs.
Introductory course in performance and production with emphasis on radio. (May be taken concurrently with 50:068.)

50:021. Play Analysis for Production I — 1-3 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.

The development of speaking and listening skills by studying the process and theory of communication and by applying communication principles to various speaking situations.

50:024. Movement for the Actor — 3 hrs.
A beginning exploration of movement for the stage. Discussion, 3 periods; lab, 3 periods.

Analysis of plays and fundamentals of directing. Prerequisite: 50:053.

50:027. Makeup — 2 hrs.
Basic techniques and materials of makeup for the stage. Discussion, 1 period; lab, 2 periods.

Application of the principles of psychology, sociology, political science, and composition to situations confronting the public speaker. Prerequisite: 50:023 or equivalent.

Introduction to the analysis and presentation of poetry, prose and drama.

Study and practice in voice and diction to develop superior vocal and articulatory skill.

Exploration of and experience with concepts and processes involved in interpersonal communication. Prerequisite: 50:023.

50:035. Problems in Interpersonal Communication — 1 hr.
Experiences and insight into one-to-one human communication. Prerequisite: 50:023.

50:044. The Theatrical Arts and Society — 3 hrs.
An audience-oriented introduction to the dramatic arts, including the live theatre, film, and television, and their interrelationships with society. Arranged lab also required.

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.

50:048. Stagecraft Lab — 1 hr.
Practical experience in laboratory setting in scenery construction, painting and lighting for the theatre. Lab section meets four hours per week. Prerequisite: may be taken concurrently with or the semester immediately following 50:053.

50:050. Acting I — 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.

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. Technical Theatre I — 3 hrs.
Fundamentals of scenery construction, painting and handling, and lighting for the theatre.

Elementary study of voice production designed to free the natural responsiveness of the actor.

50:056. Audition Techniques — 1 hr.
Selection, preparation, and performance of appropriate audition materials and development of proper audition behavior for the actor. Course meets two hours per week for one hour credit. Prerequisites: 50:050 and consent of instructor.

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 I: Basic Production — 4 hrs.
Theory and practice in planning, organizing, and staging of television programming; and introduction to television equipment. Prerequisites: 24:131 and 50:018.

50:062. Television Performance — 3 hrs.
Theory and practice in television performance techniques; use of scripted and non-scripted programming, the commercial, the public service announcement, the news, and the interview. Prerequisites: 50:018 and 50:065.

50:064. Introduction to Broadcast Writing — 3 hrs.
Techniques and script styles used in writing copy, continuity, and programs for radio and television. Prerequisite: 50:060.

Problems and techniques in broadcast performance situations; radio performance would focus on ad-lib forms, scripted and semi-scripted announcing, news delivery and interview techniques; television performance would focus on dramatic and comedic sequences, announcing, show hosting, and news reporting. Prerequisites: 50:018 and 50:060.

Principles and practice of writing and editing news for the electronic media; development of effective broadcast style, conciseness, and accuracy; basic reporting and interviewing techniques, writing for time, rewriting, editing, and compiling the news. Prerequisites: 50:018 and 66:040.

50:075. Silent Film History — 3 hrs.
Development of professional motion picture production from beginning to the sound era through an examination of selected films, research, lectures and discussion. Prerequisites: junior standing and instructor approval.

Introduction of theories, process and techniques involved in researching, planning, and implementing programs designed to influence public opinion and human behavior. Prerequisites: 50:023 and 62:005.

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. History of the Theatre II — 3 hrs.
Examination of plays, production methods, and historical trends in the theatre from the Restoration to 1900. Prerequisite: 50:082.

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.

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(g). Listening — 2 hrs.
Study of the theory and process of listening, methods of improving skills, and career applications. Prerequisite: junior standing.

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. Prerequisites: 50:031 or equivalent; junior standing or consent of instructor.

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. (Cross listed as 66:105.)

50:106. Folk Narratives in Family Communication — 3 hrs.
Communicaive functions and performance components of folk narratives in family contexts. Relationship of family narrative to communicative competence. Uses and analysis of dramatic techniques in everyday family interaction.

50:107(g). Costume History — 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.

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 or equivalent.

50:109. Applied Broadcasting — 1 hr. (See 50:009.)

50:110. Applied Theatre — 1 hr. (See 50:010.)

50:111. Applied Forensics — 1 hr. (See 50:011.)

50:112(g). Advanced Interpretation of Poetry — 3 hrs.
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 or 50:129; junior standing.

50:115. Applied Interpretation — 1 hr. (See 50:015.)

Advanced study of interpretation in public settings and mass communication. Theories, research, and projects in text-context interaction. Prerequisite: 50:031 or equivalent; junior standing or consent of instructor.

50:117. Applied Public Relations — 1 hr. (See 50:017.)

50:118. 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 equivalent, or written consent of 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 or 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 concern to lower-level departmental concerns, such as programming, sales, engineering and office administration. Prerequisites: 50:061 and junior standing.

Producing and directing single camera remote television productions; applied electronic field production techniques; emphasis on post-production. 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 Folk 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 or equivalent; 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. Prerequisites: 50:031 and junior standing.
## Course Descriptions

### 50 Communication and Theatre Arts

#### 50:125(g). Readings in Interpretation — 1-3 hrs.
- Extensive individual study of special topic in interpretation theory, history, or research. Prerequisites: consent of instructor; junior standing.

#### 50:128(g). Language and Communications — 3 hrs.
- Language and communication theories, including sociolinguistics, discourse analysis, ethnography of speaking, general semantics, and language acquisition. Prerequisite: junior standing or consent of instructor.

#### 50:129(g). Oral Interpretation of Children’s Literature — 3 hrs.
- 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.

- Prepares students to guide children in creative drama. Study of the art of spontaneous drama as it relates to the development of the child.

- Composition and presentation of manuscript speeches with special emphasis on style and attention to rhetorical examples. Prerequisites: 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 Youth — 3 hrs.
- Specific problems for 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.

- Selected psychological views of speech communication. Topic emphasis based on professional interest of class.

#### 50:137(g). Communication Theories — 3 hrs.
- Investigation of concepts offered by various theorists to explain human communication behavior. Prerequisite: junior standing.

#### 50:138(g). Organizational Communication — 3 hrs.
- Study of communication channels and patterns which occur in large organizations where personnel are largely interdependent. Prerequisite: junior standing.

- Principles of small group speech communication with emphasis on the experience in task/decision-oriented groups. Prerequisite: 50:023.

#### 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 I: 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. Prerequisite: 50:061.

- Advanced audio production techniques characteristic of radio, TV, 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 hrs.
- Examination in detail of theories of argumentation and debate, emphasizing evidence and reasoning. Prerequisite: 50:023.

#### 50:145(g). 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: Communication 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(g). 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(g). Acting Characterization — 3 hrs.
- Development of methods for creating a distinct stage personality for variety of characters. Discussion, 3 periods; lab., 3 periods. Prerequisites: 50:021; 50:024; 50:080; junior standing and consent of instructor.

- Principles and practice of radio-television news gathering; includes writing, performing, field acquisition of information, and analysis of the news process; practice in editing for news presentation. Prerequisites: 50:061; 50:065; 50:066.

#### 50:151. Theatre Design I — 3 hrs.
- Design theory and techniques as applied to the theatre. Analysis of selected scripts and development of designs in scenery and/or costuming. May be repeated for maximum of 6 hours. Prerequisites: 50:021; 50:045; 50:051.

#### 50:152(g). Directing II — 3 hrs.
- Advanced problems in directing. Each student will stage a one-act play for presentation. Discussion, 3 periods; lab., 3 periods. Prerequisites: 50:021; 50:025; junior standing or consent of instructor.

- Designed to develop an increased sensitivity to broadcast programming as an art form and as a vehicle for the dissemination of information. Prerequisites: 50:060; junior standing or consent of instructor.

- Comparative analysis of the major broadcasting systems of the world; examination of the governmental and economic structures within which the systems operate, the administrative structures, revenue sources, historical development, and programming types. Prerequisite: 50:060 and junior standing.

- Development of the structure, economics, and programming of electronic media in the United States; examination of significant persons and events contributing to the technological, economic, and social development of the electronic media. Prerequisites: 50:060 and junior standing.

#### 50:156. Theatre Lighting Technology — 2 hrs.
- Lighting instrumentation, control devices, distribution systems, lenses, and mechanics. Discussion, 2 periods; lab., 2 periods. Prerequisites: 50:021; 50:051; 50:053.

#### 50:157(g). Stage Costume II — 3 hrs.
- Pattern drafting 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 distribution or visual projects in other media; special projects in journalistic or non-journalistic script writing. May be repeated for a maximum of 6 semester hours of credit. Prerequisite: consent of instructor.

- Development of the actor's voice for performance situations. Contact hours: three per week. Prerequisite: 50:054.

#### 50:160(g). Playwriting — 3 hrs.
- Prerequisites: 50:022; consent of instructor; junior standing.

#### 50:162. Movement Studio — 3 hrs.
- Development of the actor's body for performance situations. Advanced work in alignment, physical expression and dynamics. Prerequisite: 50:024.

- Communication concepts and techniques for reporting and persuasive presentations in decision-making situations. Prerequisite: 50:023.
50:164(g). Dimensions of Interpersonal Communication — 3 hrs.
In-depth study of the theories of interpersonal communication including psychological, sociological and philosophical analysis. Prerequisites: 50:034 and junior standing.

50:165(g). Communication Research Methods — 3 hrs.
Emphasis in one of four procedures: 1) survey techniques, 2) experimental techniques, 3) historical/critical techniques, or 4) ethnographic/field methods. Credit may be earned by taking different sections, but not by repeating the same section. Prerequisite: junior standing.

50:166(g). Advanced Scene Design and Technology — 3 hrs.
Advanced work to meet needs of the multi-set show, designing for non-traditional forms, advanced problems in script interpretation, and rendering techniques. Technical solutions and problem solving emphasizing new technology. Discussion, 1 hr.; lab., 2 hrs. Prerequisites: junior standing and 50:167.

50:167(g). 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.

50:169a(g). Teaching the Oral Component of Language Arts — 2 hrs.
Study of the process of communication as it relates to children's speaking and listening skill development; examination and development of teaching strategies and resources for teaching oral communication skills at the elementary level. Prerequisites: consent of instructor; junior standing.

50:16b. Writing for Television — 3 hrs.
Practical and theoretical applications of non-journalistic writing techniques for television, including dramatic and comedic formats. Prerequisites: 50:061; 50:066; junior standing.

50:16c. Broadcast 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. Prerequisites: 50:060; junior standing.

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(g). Broadcast Script 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 when offered in alternate semesters. Prerequisites: 50:064; 50:066; junior standing.

Form and content of broadcast documentaries through analysis of historical and contemporary examples. Prerequisites: 50:060 and junior standing or consent of instructor.

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 University of Northern Iowa 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.

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.

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.

Application of theatre performance and improvisation techniques to the teaching of a specific curricular topic intended for young audiences.

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(g). 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, varnish, aniline, dyes and variety of other techniques and materials. Lab., 8 periods; lab. fee. Prerequisites: 50:051 and junior standing or consent of instructor.

50:181(g). Acting Styles — 3 hrs.
Application of techniques learned in Acting Iand 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; 50:080; and consent of instructor.

Basic skills of modern and historic styles of fencing, swordplay, and other modes of fighting, and application of these skills to the planning and safe execution of an effective and artistic stage fight.

50:183(g). 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 hrs.
Conference processes in business and professional settings with emphasis on problem solving and presentational speaking. Prerequisite: junior standing.

50:185(g). 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.

Critical study of subject with emphasis on important American statesmen after World War II.

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.

50:190(g). Theatre 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 technology: 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.

50:193(g). Teaching of Speech — 3 hrs.
Teaching strategies for grades 7-12; application of educational principles to the communication classroom. Credit also as a course in education for a student whose major is speech. Prerequisites: 12 hours of speech; strongly recommended that this course precede student teaching; junior standing.

50:194(g). 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(g). 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(g). Methods of Teaching Theatre in High School — 2 hrs.
Theory for teaching theatre in the secondary school; practical experience in
techniques for teaching, directing, and relating theatre to high school
students. Highly recommended before student teaching. Credit also as a course in
education for student whose major is speech. Prerequisite: consent of instruc-
tor and 12 semester hours of speech.
50:197(g). Internship — 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. Prereq-
isite: consent of adviser and department head.
50:205. Intercultural Communication — 3 hrs.
Synthesis of psychological, sociological, philosophical analysis of person-to-
person communication.
50:212. Speech Criticism — 3 hrs.
Comparison of theories of criticism and their application to selected speeches.
The analysis of speech communication as a behavior phenomenon. Topic
emphasis to be used on professional interest of class. Prerequisite: consent of
instructor.
Ancient rhetorical theory; emphasis on works of Aristotle, Cicero, and Quin-
tilian.
Rhetorical trends from 17th century to the present; examination of works of
major rhetoricians.
Study of major speakers and movements. Offered in three sections.
(1) British Public Address to 1865
(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 sequence.
May be repeated for a total of 3 hours credit. Approval of departmental
committee must be obtained before registration.
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 Theatre — 3 hrs.
Specialized study in some aspects of European theatre history and dramatic
literature. Prerequisite: 50:142.
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.
51:165(g). Introduction to Audiology — 3 hrs.
Basic hearing science, types of hearing loss, and audiometric measurement. Prerequisite: 51:142; 51:160; junior standing or consent of instructor.

Basic principles and instruction in the use of manual communication; survey of various manually coded English systems and American Sign Language. Prerequisite: 51:160; junior standing or consent of instructor.

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; junior standing or consent of instructor.

51:174(g). Habilitative/Rehabilitative Audiology — 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-of-hearing and deaf. Prerequisite: 51:160; 51:165; junior standing or consent of instructor.

Major issues confronting clinicians, researchers, and the profession. Topics to be determined by instructors. May be repeated as section topic change. Prerequisite: senior, graduate standing or consent 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: 51:127; junior standing or consent of instructor.

51:195(g). Organization and Management of Clinical Programs — 2 hrs.
The planning and implementation of speech-language pathology and audiology programs in various clinical settings. Prerequisite: speech-language pathology or audiology major; junior standing or consent of instructor.

Etiology, nature, habilitation, and associated problems resulting from facial clefts and other structural facial deviations. Evaluative and therapeutic principles and practices. Includes laboratory. Prerequisite: 51:125 or consent of instructor.

Review of current literature materials for language-disordered children. Requires active participation for demonstrations and presentations of articles and materials. Prerequisite: 51:106; 51:127; or consent of instructor.

Diagnosis and remediation of aphasia in adults. Prerequisite: 51:127 or consent of instructor.

Neuropsychological bases, differential diagnosis, and clinical management of motor speech disorders in children and adults. Prerequisite: 51:127 or consent of instructor.

51:244. Augmentative Communication — 2 hrs.
Study of theoretical and practical aspects of planning augmentative communication for the severely communicatively handicapped. Prerequisite: 51:127 or consent of instructor.

Review of current literature on phonological disorders; includes issues and procedures in the assessment and management of such disorders. Prerequisite: 51:125 or 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. Must be taken a minimum of three academic terms in the graduate program. Prerequisite: 51:155 or consent of instructor.

51:257. Internship in Clinical Settings — 8-16 hrs.
An advanced, supervised clinical experience offered in a variety of non-educational settings such as hospitals, rehabilitation clinics, and centers devoted to the treatment of speech and language disorders. Prerequisite: consent of instructor.

51:258. Audiology Practicum — 1-2 hrs.
Supervised clinical experience in auditory evaluation and training of the hearing impaired. May be repeated for a total of 6 hours credit. Prerequisite: Audiology or speech-language pathology major or consent of instructor.

Fundamental principles and clinical applications of pure-tone and speech audiometry. Prerequisite: 51:165.

Functional anatomy, physiology, audiology, neurology of the hearing mechanisms. Prerequisite: 51:165 or consent of instructor.

Application of pure-tone and speech audiometry to complex auditory problems and differential diagnostic questions. Prerequisite: 51:265.

Physical characteristics and clinical aspects of auditory amplifiers for the hearing impaired. Prerequisite: 51:265.

Development of auditory perception, auditory deprivation, auditory tests and techniques with the neonate, infant, and child. Prerequisite: 51:265.

Study of the audiologist's role in managing hearing conservation programs in the community, industry, and public school.

Principles and procedures for evaluating the causes of hearing loss including otologic history, otologic examination, and audiological test batteries. Prerequisite: 51:271 or consent of instructor.

51:282. Professional Issues — 1 hr.
The study of current professional issues in speech-language pathology and audiology. Prerequisite: 51:195 or consent of instructor.

Project must be approved before beginning of semester in which work is to be done. May be repeated. Prerequisite: consent of instructor.

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.

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.

Advanced techniques in diagnostics, incorporating a multi-disciplinary approach. Opportunities provided to observe and administer appropriate evaluative materials. Prerequisite: consent of adviser.

In-depth study of the etiology, diagnosis, and management of voice disorders. Emphasis is placed on voice disorders in adults. Prerequisite: 51:146 or consent of instructor.

Introduction to methodology, various designs, and report preparation for research. Requires participation in research project. Prerequisite: 25:180.

Approaches to clinical supervision; objectives and methods; practicum to be arranged concurrently. Prerequisite: enrollment will be limited to six graduate students; consent of instructor.

51:299. Research — 1-6 hrs.
Prerequisites: approval of instructor and head of department.

52 Music

Exploration of music within the context of evolving Western culture. Music fundamentals and vocabulary. Repertoires from the medieval world through the post-Romantic era.

Major trends in traditional and experimental art music, American popular music (from ragtime to rock), ca. 1900 to the present.
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, rhythmic activities and singing. This course will not count for music major or minor credit. Prerequisite: Junior standing.

52:110. Arts Management in Music — 3 hrs.
Principles and techniques of music management in the retail and professional performance sectors. Field trips and guest lecturers will supplement classroom experiences.

52:221. Music Research and Bibliography — 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 Ensemble

Organization and Ensemble Credit: 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 earned in any one semester. A maximum of two (2) credits in Jazz Band I or Chamber Choir may be counted by music majors toward departmental ensemble requirement (or electives for B.A. students). 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, University of Northern Iowa Singers, Varsity Men's Glee Club, Women's Chorus, Chamber Choir)
53:012, 53:112(g). Ensemble
53:015, 53:115(g). Band
(Symphonic Band, Basketball Pep Band, Wind Symphony)
53:016, 53:116(g). Jazz Band
53:017, 53:117(g). Orchestra
53:018, 53:118(g). Marching Band

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:

<table>
<thead>
<tr>
<th>Major (for Performance majors only)</th>
<th>3 semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentration (all freshmen during Core requirements and all upperclass and graduate music majors except Performance majors)</td>
<td>2 semester hours</td>
</tr>
</tbody>
</table>

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 three (3) 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 semester 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 (54:0xx, 54:1xx, or 54:2xx) 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 54:1xx(g) credit.

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. Flute
54:031, 54:131(g), 54:231. Oboe
54:032, 54:132(g), 54:232. Clarinet
54:033, 54:133(g), 54:233. Bassoon
54:034, 54:134(g), 54:234. Saxophone
54:035, 54:135(g), 54:235. French Horn
54:036, 54:136(g), 54:236. Cornet-Trumpet
54:037, 54:137(g), 54:237. Trombone
54:038, 54:138(g), 54:238. Euphonium
54:039, 54:139(g), 54:239. Tuba
54:040, 54:140(g), 54:240. Percussion
54:041, 54:141(g), 54:241. Violin
54:042, 54:142(g), 54:242. Viola
54:043, 54:143(g), 54:243. Cello
54:044, 54:144(g), 54:244. String Bass
54:045, 54:145(g), 54:245. Harp
54:046, 54:146(g), 54:246. Piano
54:047, 54:147(g), 54:247. Group Piano
54:048, 54:148(g), 54:248. Organ
54:049, 54:149(g), 54:249. Voice
54:050, 54:150(g), 54:250. Harpsichord
54:051, 54:151(g), 54:251. Group Voice
54:052, 54:152(g), 54:252. Guitar
54:054, 54:154(g), 54:254. Composition
(Prerequisite: 58:022 and consent of instructor)
54:129. Instrumental Proficiency — no credit.
Voice or instrumental proficiency required of all music education keyboard majors.
54:PA46. Piano Proficiency — no credit.
Required of all undergraduate majors.
54:V49. Voice Proficiency — no credit.
Voice or instrumental proficiency required of all music education keyboard majors.
54:189. Senior Recital — no credit.
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

Tape recording: theory and practical application. Includes live recording, mixing, editing, overdubbing, sound reinforcement, and tape recorder maintenance. Prerequisite: consent of instructor.
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: 56:017; 58:013.
56:022. Conducting II — Choral — 3 hrs.
Training in choral conducting, rehearsal techniques, performance practices, and choral materials. Required on the teaching degree for voice majors and those keyboard majors who do not take 56:021. Prerequisites: 56:018; 56:013.
56:030. Diction for Singers I — 1 hr.
Study and application of Italian and English speech sounds for use by singers, coach-accompanists, and teachers of choral music.
56:031. Diction for Singers 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 Playing — 1 hr.
Selected problems in church service playing and aspects of organ design. May be repeated for credit.
Techniques of the American music stage. Includes work in movement, style and history. Preparation of a major music theatre production and/or scenes from units in opera and operettas. Eighteen hour seminar. May be repeated for credit. Prerequisite: consent of instructor.
56:051, 56:151(g). Opera Theatre — 1-2 hrs.
Techniques of opera performance. Emphasis on aria, recitative, and ensemble performance; preparation of roles. Study and application of coaching, interpretation, acting, and stage production techniques. Preparation of major operatic production and/or scenes. May be repeated for credit. Prerequisite: 56:051 for freshmen/sophomores; 56:151(g) for juniors/seniors.
56:052, 56:152(g). Instrumental Jazz Improvisation — 1 hr.
Elements of improvisation intended as an aid to the experienced instrumentalist and as a tool for the potential instructor. Areas available: Basic, Intermediate, Advanced. Each area may be taken once for credit. Prerequisite: consent of instructor. (See 56:052.)
56:110. Guitar in the Classroom — 2 hrs.
For potential teachers of elementary and junior high school music; fundamentals of guitar and basic materials necessary for the effective use of the guitar in the classroom. No previous guitar experience required; basic music background desirable.
56:115(g). Advanced Recording Techniques — 2 hrs.
Continuation of 56:015. Studio recording using multi-channel audio equipment and as a tool for the potential instructor. Areas available: Basic, Intermediate, Advanced. Each area may be taken once for credit. Prerequisite: consent of instructor.
56:121(g). Conducting III — Instrumental — 2 hrs.
Techniques of conducting band and orchestral works; study and analysis of major works representing all style periods. Classwork includes conducting major works in rehearsal. May be repeated for credit. Prerequisite: 56:021; junior standing or consent of instructor.
56:122(g). Conducting III — Choral — 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. Rehearsal experiences include conducting major works, conducting and coaching of recitatives, score reading, problems of baton clarity, and rehearsal pacing. May be repeated for credit. Prerequisites: 56:022; junior standing or consent of instructor.
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(g). Music Theatre — 1-2 hrs. (See 56:050.)
56:151(g). Opera Theatre — 1-2 hrs. (See 56:051.)
56:152(g). Instrumental Jazz Improvisation — 1 hr. (See 56:052.)
56:155. Jazz Ensemble Techniques — 1 hr.
Practical course for future jazz-ensemble director; includes phrasing and articulation, rehearsal techniques, sound reinforcement, and chord terminology. Student will observe and participate in conducting one of the University of Northern Iowa jazz ensembles. Will not count on music education programs.
56:221. Advanced Instrumental Conducting — 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. Prerequisites: 56:121 or equivalent, and consent of instructor.
56:222. Advanced Choral Conducting — 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. Prerequisites: 56:122 or equivalent, and consent of instructor.
57:010. Instrumental Techniques — 1 hr.
Areas: flute, clarinet and saxophone, double reeds, high brass, low brass, high strings, low strings, percussion, harp. Emphasis on pedagogy relevant to the elementary or beginning student musician. One hour credit for each area. Areas may not be repeated for additional credit.
Overview of music education methodologies, philosophies, and techniques, including computer-based music instruction (CBMI). Techniques for audio and video recording of music ensembles.
57:130(g). Vocal Pedagogy — 2 hrs.
Techniques of diagnosing and discussing vocal problems as related to the singing voice, and a survey of pedagogic materials. Actual teaching experience under supervision. Prerequisite: junior standing music major or above.
57:158(g). Brass Pedagogy — 2 hrs.
Advanced techniques of solving physiological and psychological problems of brass performance. Emphasis on motivation, attitude, stage fright, as well as more traditional topics (i.e., respiration, articulation, embouchure, endurance, and intonation). Prerequisites: brass techniques or teaching experience; junior standing or consent of instructor.
Objectives and materials for and methods of teaching general music in public schools. Emphasis on contemporary approaches: Orff, Kodaly, Dalcroze, Integrated Arts, and other methodologies. Prerequisites: 57:050.
57:142. Music 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, including vocal and instrumental activities, and responsive music making, and the development of music education for young children. May be repeated for credit. Prerequisites: 57:050; junior standing or consent of instructor.
57:144(g). Piano Methods — 2 hrs.
Principles and techniques of piano instruction, especially for the beginning student. Prerequisites: 57:050; junior standing or consent of instructor.
57:145. Introduction to Kodaly and Orff — 2 hrs.
Introduction to teaching techniques, learning environments, and curriculum as developed from the philosophies of Zoltan Kodaly and Carl Orff.
57:146(g). Developmental and Trends in Music Education — 2 hrs.
Developments in music education. Prerequisites: 57:144; 57:145; 57:050; junior standing or consent of instructor.
57:148(g). Piano Methods — 2 hrs.
Principles and techniques of piano instruction, especially for the beginning student. Prerequisites: 57:050; junior standing or consent of instructor.
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. Evaluation techniques appropriate to the school music setting.
Organization and development of public school choral organizations. Emphasis on choral conducting techniques, vocal production and blend, and materials suitable for choral ensembles. Evaluation techniques appropriate to the school music setting.
57:170(g). The Suzuki 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 Special Education — 2 hrs.
Development of music teaching techniques appropriate to the needs of special children; information on the implications and requirements of mainstreaming for music education; assessment of music skills, development of Individualized Educational Programs. Prerequisites: 22:150; 57:141; or consent of instructor.
57:191(g). Music in Special 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). Practicum, 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 Upkeep and Repair — 2 hrs.
A laboratory course in which practical projects are undertaken. Offered for junior standing or consent of instructor.

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 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.

The study of practical situations in the general music program with special emphasis on grades one through nine.


58 Music Theory

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, rhythm, 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.

Materials of musicianship: emphasis on the so-called period of "common practice." Corequisite: 58:017.

58:014. Theory 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. Aural Training II — 1 hr.

58:017. Aural Training III — 1 hr.

58:018. Aural Training 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.)

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). Sixteenth Century Counterpoint — 3 hrs.
The vocal polyphonic style of the 16th century. Analysis. Creative work in vocal forms; motet, madrigal, mass. Prerequisites: 58:013; junior standing.

58:121(g). Eighteenth Century Counterpoint — 3 hrs.
Contraul point technique and instrumental forms of the 18th century. Analysis and creative work in representative forms. Prerequisites: 58:013; junior standing.

58:122(g). Advanced Composition Class — 3 hrs.
Creative work in the larger forms. Student must complete 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.

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.

Continuation of 58:127. Emphasis on contemporary scoring devices, augmented instrumentation (including strings), contrapuntal and formal problems, score study and analysis. Prerequisite: 58:127.

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.

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: Major 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 Their Eras — 2 hrs.
Continuation of 58:211. Stravinsky to the present. Prerequisite: 58:180 or passing score on Graduate Theory Diagnostic Examination.

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

Exploration of basic musical concepts and repertoires in Western Civilization. Music listening techniques.

Survey of musical trends from all eras. Early Christian era through Bach (1750). Prerequisite: 59:005.

Continuation of 59:010. Classical period to the present. Prerequisite: 59:005.

59:050. Introduction to Jazz History and Styles — 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 jazz on classical and rock music.

59:110(g). Music Literature — Middle Ages and Renaissance — 3 hrs.
Prerequisites: 59:010 and 59:011; junior standing.

59:111(g). Music Literature — Baroque — 3 hrs.
Prerequisites: 59:010 and 59:011; junior standing.

Prerequisites: 59:010 and 59:011; junior standing.

59:114(g). Music Literature — Romantic — 3 hrs.
Prerequisites: 59:010; 59:011.

Prerequisites: 59:010 and 59:011; junior standing.

59:120(g). 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.

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 Opera — 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, cantata, 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 — 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: 59:011; 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(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.

Review of the various style periods, media and forms in musical history. Required of all graduate students who do not demonstrate adequate proficiency as a result of the Graduate Music History Diagnostic Examination. May be repeated for credit.

Development of musical instruments from antiquity to the present; includes both western and non-western cultures.

Prerequisite: consent of Graduate Coordinator in Music.

Musical research into the various areas of music. May satisfy departmental requirement of 52:221.

60 Art

A studio course: experiences in critical responses to the visual arts through an active involvement with various creative processes and media and through the study of the relationship of the visual arts to other fields of human endeavor.

A lecture course: experiences in critical responses to the visual arts through the analyses of artworks and artistic processes and the relationship of the visual arts to other fields of human endeavor.

60:018. Drawing I — 3 hrs.
Emphasis on growth in perception of visual form. Range of materials and subject matter.

60:019. Drawing II — 3 hrs.
Continuation of 60:018 with greater emphasis upon self-direction. Prerequisite: 60:018.

60:025. Graphic Design I — 3 hrs.
Introduction to graphic design concepts and methods. Basics of typographic letter forms, layout and print production. Prerequisite (for art majors and minors): Foundations Program.

60:026. Two-Dimensional Concepts — 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.

60:027. Three-Dimensional Concepts — 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.

60:029. Papermaking I — 3 hrs.
An exploration of the potential of handmade paper as an expressive art form. Activities will include experimentation in the traditional methods of making paper out of various materials, as well as casting and constructing three-dimensional paper forms. Prerequisite (for art majors and minors): Foundations Program.

60:030. Papermaking II — 3 hrs.
An exploration of traditional and non-traditional techniques. Students will propose projects for research; such projects can be in the area of craftsmanship in making fine sheets of paper, unique sheets as artworks, experimental works in 2D and 3D or combinations, paper technology, fiber research; and combining other processes such as printing or painting with handmade paper. Prerequisite: 60:029.

60:032. Creative Photography I — 3 hrs.
Heightening perceptual and conceptual awareness through the intermediary of the camera and photosensitive emulsions. Prerequisite (for art majors and minors): Foundations Program.

60:033. Intaglio — Woodcut — 3 hrs.
Beginning experiences in making intaglio and woodcut prints. Prerequisite (for art majors and minors): Foundations Program.

60:035. Lithographs — Screenprint — 3 hrs.
Beginning experiences in making lithographic and screenprints. Prerequisite (for art majors and minors): Foundations Program.

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. Prerequisite (for art majors and minors): Foundations Program.

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. Ceramics I — 3 hrs.
Ceramic materials, design, forming, glazing and firing. Prerequisite (for art majors and minors): Foundations Program.

60:051. Ceramics II — 3 hrs.
Continuation of 60:050 with further development in technical and aesthetic skills. Prerequisite: 60:050.

60:055. General Crafts — 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. Prerequisite (for art majors and minors): Foundations Program.

60:074. Jewelry and Metalwork — 3 hrs.
Forming, joining, decorating, and combining precious and non-precious metals with other materials. Prerequisite (for art majors and minors): Foundations Program.

60:080. Painting I — 3 hrs.
Experience in various painting media. Prerequisite (for art majors and minors): Foundations Program.

60:081. Painting II — 3 hrs.
Continuation of 60:080 with greater emphasis upon self-direction. Prerequisite: 60:080.

60:090. Art and the Child — 3 hrs.
Primarily designed for the elementary education student with little or no experience or knowledge of art. The psychological and artistic development of the elementary school student is studied in depth, emphasizing creativity within the elementary school and art curriculum.

60:091. Elementary Art Education I — 2 hrs.
The art making process of children from pre-school to junior high school. 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. Requires a minimum of 15 hours of observation and participation in a teaching program.

60:092. Elementary Art Education II — 3 hrs.
Exploration of tools, materials, processes, and curriculum appropriate for the elementary classroom. Requires participation in Children's Art Workshop. Prerequisite: 60:091.

The study of the varied aspects of arts management including operating policies, facilities, staffing and fund raising. The development of skills and knowledge necessary for a basic understanding of arts management.
Continuation of Principles and Techniques of Arts Management I. Additionally, areas such as grantsmanship, legal issues, contracts and budgets will be examined as they affect various arts institutions. Prerequisite: 60:108.

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. Life Drawing — 3 hrs.
Drawing from the model using a variety of media. May be repeated for credit. Prerequisite: 60:019.

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 projects as well as design projects for the university and community. Prerequisite: 60:025.

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: 60:125.

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: 60:125.

60:129.Typography — 3 hrs.
Exploration of the development of typography as an art form. The course includes study of the historical development of typography, the anatomy of type, and the compositional considerations in typography selections. Emphasis is placed on aesthetic use of typography as a design element. Prerequisite: 60:125.

60:130. Creative Photography 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.

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.

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 Printmaking — 3 hrs.
Advanced work with greater emphasis on self-direction. Prerequisite: 60:033 or 60:035. May be repeated once for credit.

Research in using handmade paper as an art medium, technical research in fine handmade paper; experimental approaches combining handmade paper with other media. Prerequisite: 60:030.

60:137. Advanced Sculpture — 3 hrs.
Continuation of 60:037 with greater emphasis upon self-direction. May be repeated once. Prerequisite: 60:037.

60:139(g). Art of the Ancient Near East — 3 hrs.
An examination of various developments in the Ancient Near East, e.g., Mesopotamia, Anatolia, and the Levant, from the formative periods to the first millennium, primarily through the art and architecture. Prerequisites: junior standing or (for art majors and minors) 60:040 and 60:041.

60:140(g). Art of Ancient Egypt — 3 hrs. An examination of Egyptian culture from the early phases of Pre-Dynastic to the first millennium, primarily through the art and architecture. Prerequisites: junior standing or (for art majors and minors) 60:040 and 60:041.


60:142(g). Italian Renaissance Art — 3 hrs. History of 14th, 15th, and 16th century Italian art. Prerequisites: junior standing or (for art majors and minors) 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 and minors) 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 and minors) 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 and minors) 60:040 and 60:041.

60:149(g). 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. Prerequisites: junior standing or (for art majors and minors) 60:040 and 60:041.

60:151(g). Early 20th Century Art — 3 hrs. Art from 1900 to mid-20th century. Prerequisites: junior standing or (for art majors and minors) 60:040 and 60:041.

60:152(g). Late 20th Century Art — 3 hrs. Art since mid-20th century. Prerequisites: junior standing or (for art majors and minors) 60:040 and 60:041.

60:153(g). History of Photography — 3 hrs. Survey of the history and evolution of photography since its invention in 1839 to the present day. Prerequisites: junior standing or (for art majors and minors) 60:040 and 60:041.

60:156. Advanced Crafts — 3 hrs. Continuation of 60:055 with greater emphasis upon self-direction. May be repeated once. Prerequisite: 60:055.
*First registration for 3 hours only.

60:170. Advanced Metalwork — 3 hrs. Continuation of 60:074 with greater emphasis upon self-direction. May be repeated once. Prerequisite: 60:074.

60:172. Ceramics III — 3 hrs. Prerequisite: 60:051.


60:180. Painting III — 3 hrs. Prerequisite: 60:081.


60:189. B.F.A. Exhibition — no credit.

60:192. B.F.A. Seminar: Critical Issues in Contemporary Art — 2 hrs. Critical analysis and discussion of contemporary art. Prerequisites: admission to the Bachelor of Fine Arts degree program and junior standing, or consent of the department head.

60:193. Secondary Art Education I — 3 hrs. An emphasis on the content, methods, and philosophy of the middle school or junior high school art program. Requires participation in the Children’s Art Workshop. Prerequisite: 60:092.
60:194. Secondary Art Education II — 2 hrs.
Continuation of 60:193 with emphasis on senior high art activities, courses, and programs. Requires a minimum of 15 hours of observation and participation in a teaching program. Prerequisite: 60:193.

Investigation of individual concepts and techniques in studio preparation for the Bachelor of Fine Arts exhibition. Prerequisites: admission to the B.F.A. program, senior standing and consent of the instructor.

Investigation of individual concepts and techniques culminating in a professional Bachelor of Fine Arts exhibition. Prerequisites: 60:196 and consent of instructor; B.F.A. exhibition must be scheduled concurrently.

60:198. Independent Study.


60:286. Seminar: Critique and Analysis — 2 hrs.
Analysis of concepts, forms and techniques encountered in one's own creative studio work and work of others. Investigation of individually selected concepts and materials. Examines role of professional artist and public.

60:293. Research in Art History — 1-3 hrs.
May be repeated for credit. Prerequisite: 6 hours in graduate-level art history.

Specific art education relating to public schools with emphasis upon continuity of art activity. Satisfies the special methods elective for the professional core.

60:296. The Supervision of Art — 3 hrs.
Teaching problems and practices relating to the curriculum and the supervision of art.

60:297. Practicum.

60:299. Research.

62 English Language and Literature

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 hrs.
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 University of Northern Iowa English admissions requirement; successful completion of this course satisfies the requirement. Offered on an ungraded basis; meets three hours a week.

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 count for credit on any English major or minor.

62:005. Introduction to College Writing — 3 hrs.
Emphasis on writing processes with attention to audience, purpose, and modes. A requirement in General Education; does not count for credit on any English Department major or minor.


62:031. Introduction to Literature — 3 hrs.
Understanding and appreciating the basic forms of literature through close reading of literary texts, including works originally written in English. An option in General Education; does not count for credit on any English Department major or minor.

Practice in analysis of poetry, drama, and fiction. Prerequisite or corequisite: pass on Writing Competency Examination or 62:001 or 62:005.

62:035. Introduction to Film — 3 hrs.
An examination of an introductory level of four film genres: narrative, documentary, animated, experimental; preparation for further work, either individually or academically.

Major trends and masterpieces from Medieval, Renaissance, and 18th Century periods: 700-1800. Prerequisite: pass on Writing Competency Examination of 62:001 or 62:005.

Major trends and masterpieces from the Romantic, Victorian, and Modern periods: 1800 to present. Prerequisite: pass on Writing Competency Examination or 62:001 or 62:005.

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.

62:051. American Literature to 1866 — 3 hrs.
Broad trends and important writers in the American literary tradition from the Puritan period through the major Romantics. Prerequisite: pass on Writing Competency Examination or 62:001 or 62:005.

62:052. American Literature since 1866 — 3 hrs.
Broad trends and important writers in the American literary tradition from the Romantic period to the present. Prerequisite: pass on Writing Competency Examination or 62:001 or 62:005.

Selected works by major American writers from Colonial times to present. Does not count for credit on English majors or minors.

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.

A study of Black writers in America. Does not count for credit on English majors or minors.

Masterpieces of Western literature from the beginnings to 1650. Prerequisite: pass on Writing Competency Examination or 62:001 or 62:005.

Masterpieces of Western literature from 1650 to present. Prerequisite: pass on Writing Competency Examination or 62:001 or 62:005.

62:070. Creative Writing — 3 hrs.
Initial experiences in writing of fiction or poetry. May not be repeated for credit.

Writing various types of essays (e.g., narrative, descriptive, expository, persuasive); attention to stylistic questions and possibilities. Prerequisite: pass on Writing Competency Examination or 62:005 and junior standing or consent of instructor.

Writing on controversial issues; emphasis on development of evidence and study of audience psychology. Prerequisite: pass on Writing Competency Examination or 62:005 and 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 or 62:005 and junior standing or consent of instructor.

62:112(g). European Drama: Ancient Greeks to 1900 — 3 hrs.
Major dramatists of the Western tradition from ancient Greece to 19th-century Europe (in English translation). Prerequisite: 62:034 or junior standing or consent of instructor.

62:113(g). British Drama to 1900 — 3 hrs.
Emphasis on contemporaries of Shakespeare such as Marlowe, 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.
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). British Romantic Writers — 3 hrs.
Early 19th-century writers such as Wordsworth, Keats, Hazlitt, and Scott. Prerequisite: 62:034 or junior standing or consent of instructor.

Later 19th-century writers of verse and prose such as Tennyson, Browning, Arnold, Carlyle, Mill and Ruskin. Prerequisite: 62:034 or junior standing or consent of instructor.

Prerequisite: 62:034 or junior standing or consent of instructor.

62:121(g). The American Renaissance — 3 hrs.
Major writers of the 1840's and 1850's: Hawthorne, Melville, Emerson, Thoreau, and early Whitman. Prerequisite: 62:034 or junior standing or consent of instructor.

62:122(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.

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.

Imagery, symbols, and myths of women in literature; feminist criticism. Prerequisite: 62:034.

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(g). Milton — 3 hrs.
Milton's major English poetry and prose. Prerequisite: 62:034 or junior standing or consent of instructor.

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.

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.

Selected works by prominent Afro-American writers since 1940. Prerequisite: 62:034 or junior standing or consent of instructor.

62:161(g). Literary Criticism — 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 — 2-3 hrs.
Reading and evaluation of literature suitable for adolescents. Prerequisite: 62:034 or junior standing or consent of instructor.

62:174(g). Poetry Workshop — 1-6 hrs.
May be repeated for credit. Prerequisite: 62:070 or consent of instructor.

62:175(g). Fiction Workshop — 1-6 hrs.
May be repeated for credit. Prerequisite: 62:070 or consent of instructor.

62:188(g). Seminar in Literature — 3 hrs.
Topic to be announced in Schedule of Classes. Prerequisite: 62:034 or junior standing or consent of instructor.

62:190(g). 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.
Prerequisites: pass on Writing Competency Examination or 62:005 and junior standing or consent of instructor.

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).


62:201. Introduction to Graduate Study in English — 3 hrs.
Introduction to the problems, techniques, and tools of graduate-level study and research in English.

62:204. Topics in Literary Criticism — 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.

(1485-1660).

62:223. Restoration and 18th Century English Literature — 3 hrs.
(1660-1798).

Romantic or Victorian (1798-1900).

(1900-1945).

(1800-1870).

(1870-1912).

(1912-1945).

Literature from 1945 to the present; may include poetry, drama, and/or fiction.


62:292. Teaching English in the Community College


62:319. Seminar in the Teaching of English

62:319. Seminar in the Teaching of English


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(g). The Structure of English — 3 hrs.
Linguistic analysis of the major phonological, syntactic, and semantic properties of modern American English.

The interrelationship of language, culture, and non-verbal communication and the role each of these plays in shaping thought and attitudes.

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). Historical and Comparative Linguistics — 3 hrs.
Theories of language change and diversification. Discussion of genetic and typological analysis and classification, reconstruction, dialect emergence, and linguistic universals. Prerequisite: 63:125 or 63:130.

63:154(g). Phonology — 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-transactional 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.

63:165(g). Language Development — 3 hrs.
Intensive study of contemporary theory and research in language development; contrastive analysis and the implications for practice. Prerequisite: junior standing or consent of instructor.

63:190(g). 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. Prerequisite: 63:125 or 63:130; junior standing or consent of instructor.

63:192(g). Problems in English Grammar — 3 hrs.
Prerequisite: 63:125 or 63:130.

63:194(g). 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.

63:195(g). Modern English Grammar and Usage — 3 hrs.
An intensive examination of English grammar, mechanics, and usage; rules of punctuation, spelling, syntax, and usage related to oral and written forms of English; discussion of the teaching of grammar. Prerequisite: junior standing and consent of instructor.

63:196. Bilingual Education in the Public Schools — 3 hrs.
The historical development of bilingual education and current approaches to meeting the needs of limited English proficient students; special emphasis on the principles of content-based second language instruction and the role of language attitudes in policy making.


63:201. Introduction to Graduate Study in TESOL/Linguistics — 2 hrs.
Introduction to sources, tools and techniques in graduate-level study and research in TESOL and the language sciences.


Topic to be announced in Schedule of Classes; may be repeated for credit.

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 learning and applications for classroom teacher.

An examination of the basic approaches and techniques for constructing and interpreting language tests.

Graduate-level student teaching of English as a foreign language.

63:299. Research.

64 Religion

64:020. The Heritage of the Bible — 3 hrs.
A non-sectarian study of the Bible.

Basic forms and views of 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, Christology, of the church, and other basic beliefs, centered on the first centuries. Prerequisite: junior standing or consent of instructor.

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. Prerequisite: junior standing or consent of instructor.

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. Prerequisite: junior standing or consent of instructor.

Issues raised by the encounter between traditional Christian faith and modern concepts and methods of philosophy, science, history, sociology, and cultural criticism. Examines positions of both 19th- and 20th-century theologians. Prerequisite: junior standing or consent of instructor.

64:117(g). Religion in America — 3 hrs.
Investigation of religious movements and beliefs from colonial times to the present. Recommended to precede this course, one of the following: 64:020, 64:124; 65:021. Prerequisite: junior standing or consent of instructor, (Same as 96:145.)

64:118(g). Liberation Theology — 3 hrs.
A study of contemporary movements that interpret Christianity in terms of political, economic, and social liberation, including theological themes, Biblical scholarship, and social issues. Special focus: an in-depth exploration of liberation theology in its social context (e.g. Latin America, South Africa). 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.

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 of the area of mysticism. Prerequisite: junior standing or consent of instructor.

64:130(g). Great Living Religions: Hinduism and Buddhism — 3 hrs.
Hinduism, Jainism, Buddhism, Islam. 64:124 strongly recommended to precede.

64:132(g). Great Living Religions: Confucianism, Taoism, and Zen — 3 hrs.
Taoism, Confucianism, Buddhism, Shintoism. 64:124 strongly recommended to precede.

64:134(g). Great Living Religions: Judaism, Eastern Christianity, and Islam — 3 hrs.
The origin and development of Judaism, Eastern Christianity, and Islam; including examination of ancient Egyptian, Mesopotamian, and Graeco-Roman religions.

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(g). Atheism — 3 hrs.
A critical introduction to various types of modern atheism. Prerequisite: junior standing or consent of instructor.

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.

An introduction to the history and ideas of the New Testament. Prerequisite: junior standing or consent of instructor.

64:160(g). Psychology of Religious Experience — 3 hrs.
Basic structures of religious experience, in relation to the concepts of identity, the unconscious, transformation, and transpersonal reality. Prerequisite: junior standing or consent of instructor.

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 instructor.

64:165(g). Religion and Society — 3 hrs.
Religious institutions and their social context; changes and development in religion. Religious organization and behavior; social function of religion. 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). Individual Readings in Religion — 1-3 hrs.
Individually arranged readings and reports from (1) Biblical studies, (2) history of religions, or (3) contemporary religious thought. Repeatable up to 6 hours. Prerequisite: department head approval.

65 Philosophy

An introductory exploration of questions concerning the nature of the self, reality, meaning, knowledge, truth, faith, value and obligation.

65:100(g). History of Philosophy — Ancient — 3 hrs.
The history of philosophy from the Pre-Socratics to late antiquity, with emphasis on Plato and Aristotle. 65:021 strongly recommended to precede.

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(g). 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). Marxism — 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 Marxism 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. Logic — 3 hrs.
Methods, principles, and rules of reasoning with emphasis upon their practical uses in effective thinking, scientific inquiry, and verbal communication.

65:150(g). Knowledge and Reality — 3 hrs.
Study of the variety of knowledge-claims about the world and of the structures of reality implied. Prerequisite: junior standing or consent of instructor.

65:152(g). Existentialism — 3 hrs.
A study of interpretations of human experience in contemporary thought. Presupposes no previous knowledge of philosophy. Prerequisite: junior standing or consent of instructor.

65:153(g). The Human Person — 3 hrs.
A study of various interpretations of the nature and process of being human. Prerequisite: junior standing or consent of instructor.

65:165(g). Epistemology — 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: junior standing or consent of instructor.

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). Capitalism, Socialism, 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 hrs.
Individually arranged readings and reports drawn from (1) History of Philosophy, (2) History of Philosophy: Medieval, or (3) Contemporary Religious Thought. Repeatable up to 6 hours. Prerequisite: department head approval.

66 Journalism

Technical and critical survey of print and electronic media, and related fields.

News values; methods of obtaining, verifying, writing, editing, and presenting news. Prerequisite: minimum 30 words per minute typing skill.

66:102(g). Magazine Article Writing — 3 hrs.
Writing and marketing different types of articles for various publications. Prerequisites: junior standing; 62:003 or 66:040 or consent of instructor.

66:103(g). High School Newspaper and Yearbook — 3 hrs.
Advising school publications; staff organizations; methods of printing; policies, style, content, textbooks, business management. Prerequisites: junior standing; 66:040 or consent of instructor.

66:105(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. (Cross listed as 56:105.)
66:110. Field 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.

Development of American newspapers and periodicals, from early beginnings in Europe to present day; rise of radio and television.

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. Prerequisite: junior standing.

66:140. Advanced Reporting — 3 hrs.
Gathering information and writing and editing of complex news stories; emphasis on the social, legal, and moral 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.

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.

Literature, philosophy, religion, and the fine arts, integrated with the history of Western Civilization (ancient times through the reformation).

68:022. Humanities II — 4 hrs.
A continuation of 68:021 (from the 17th century to the present).

An interdisciplinary approach to the study of feminism and those aspects of sex-role stereotyping and socialization in institutions, programs, and curricula which prevent sex-fair treatment for all.

68:102(g). Non-Verbal Communication — 3 hrs.
Patterns of human expression apart from the spoken or written word. (Same as 50:102.)

68:121. Non-Western Cultures: Japan — 3 hrs.
An interdisciplinary examination of the culture, history, geography, economy, political system, and society of Japan. May be repeated for an additional 2 hours of credit.

68:122. Non-Western Cultures: Japan — 3 hrs.
An introduction to the study of Japan: its geographical setting, historical background, cultural heritage, social and political systems, and economic development and importance.

A historical treatment of significant elements of Chinese culture and major aspects of modern China's transformations since the mid-nineteenth century.

68:125. Foreign Area Studies: India — 3 hrs.
A historical treatment of significant elements of Indian culture and major aspects of modern India's transformation under British rule and since independence.

68:127. Foreign Area Studies: Middle East — 3 hrs.
An interdisciplinary examination of significant elements of Middle East culture and society, its current patterns, tensions, and contributions.

An interdisciplinary examination of contemporary African society and culture, its historical heritage, its problems, prospects and importance.

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.

Student to spend at least 5 hours a week working in a ghetto on a self-directed 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.

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 and the impact that interactions with European and U.S. societies had on Indian lifeways. (Same as 99:132.)

68:137. Native Central and South America — 3 hrs.
Ethnographic, ethnohistorical and archaeological survey of the sociocultural systems developed by Native Americans south of Mexico; emphasizes the relationships that exist among ecological and historical factors, subsistence techniques, social organizations, and belief systems from holistic, comparative and cross-cultural perspectives. (Same as 99:137.)

68:165(g). Tragedy — 3 hrs.
The interpretation of classical, Christian, and modern works portraying the human encounter with suffering and death.

Using a mixture of films, text, interdisciplinary readings, and class discussions, this course investigates specific uses of the humanities in the art of living.

Study of primitive and sophisticated examples of myth and mythopoesis thinking from a variety of cultures; emphasis on how myths function in art, society, and the individual.

68:189(g). Seminar in Environmental Problems — 3 hrs.
Experience in environmental problem solving of both a theoretical and practical nature. Prerequisite: consent of instructor.

Seminar in humanities offered as indicated in Schedule of Classes. For upperclass students of any major. May be repeated for credit in different fields.

68:194(g). Seminar on Death and Dying — 3 hrs.
Topics and research concerning the anticipation of dying, toward the goal of sensitive communication with those most affected by death — the social, the terminally ill, and the grieving.

(See pp. 56-57, 145.)

70 Languages

70:089. Preparation for Study Abroad — 2 hrs.
For students planning to study and travel abroad. Includes practical, social, geographic, and cultural aspects; emphasis on contrasting American and foreign cultures. No credit on major or minor in foreign language.

70:110(g). Comparative Study of Western Literature and Civilization — 3 hrs.
A comparative study of major literary movements and philosophical concepts and their impact on Western culture. A team-teaching approach will be used in order to present literary and cultural areas from different points of view and to show how the different countries, their literatures, languages and cultures are interlinked and how they have influenced one another. 1 hour of credit may be counted toward a major in a foreign language. Taught in English. Prerequisite: 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 by English translation. No credit on major or minor in foreign language.

70:180(g). Translation of Literary Texts — 3 hrs.
Theories and techniques of literary translation. Prerequisites: 7x:101 or other advanced composition course in a second language; junior standing or consent of instructor.

70:181(g). 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. Prerequisites: reading knowledge of one foreign language, junior standing and consent of instructor.
70:100(g). The Teaching of Foreign Languages — 2-4 hrs.
Credit also as a course in education for a student whose major is foreign languages. This course ordinarily should precede student teaching. Prerequisite: 72:101 or 74:101 or 78:101.

70:105(g). Research Methods in Modern Languages — 1 hr.
Preparation for writing the required M.A. research paper. Guided visits to the library stressing modern language sources, practice in compiling a bibliography for topics(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.

71 Chinese
For beginners.

Continuation of Elementary Chinese I. Prerequisite: 71:001 or approval of instructor.

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.

Continuation of Intermediate Chinese I. Prerequisite: 71:011 or approval of instructor.

Increased use of compounds. Review of more difficult characters. Introduction to Chinese classical literature. Prerequisite: 71:012 or approval of instructor.

Continuation of Advanced Chinese I. Prerequisite: 71:101 or approval of instructor.

72 French
For beginners. Not recommended for students who have had two or more years of French in high school or the equivalent.

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.

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.

Develops oral fluency through pattern practice, systematically guided conversations on civilization topics using structures reviewed in the corresponding composition course and free conversation on subjects of current interest. (Combination of credits together with 72:051 may not total more than 5 hours in one semester.) Prerequisite: 72:002 or equivalent; 72:011 or equivalent. Corequisite: 72:051 or other intermediate course with approval of department head.

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.

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. Prerequisites: 72:051 and 72:061, or equivalent.

72:090. Teaching French in the Elementary 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. Bilingual 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. May be repeated, but not to exceed 6 hours. Prerequisite: consent of instructor.

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(g). 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(g). 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(g). Short Stories — 3 hrs.
Short stories from Vigny, Merimee, Daudet, Maupassant, Ayme and others. Prerequisite or corequisite: 72:101 or equivalent.

72:118(g). Popular Prose Fiction — 3 hrs.
Novels from V. Hugo, A. Dumas, B. Benoît, Maurois, Daninos, Druon and/or others. Prerequisite or corequisite: 72:101 or equivalent.

72:120. French Civilization 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.

72:121(g). Special Topics in Language and Culture — 3 hrs.
Special topics and aspects of the discipline. May be repeated except when topic is identical. Prerequisites: 72:072, 72:101, or equivalents; junior standing or consent of instructor.

72:122(g). Special Topics in Literature — 3 hrs.
Special topics and aspects of the discipline. May be repeated except when topic is identical. Prerequisites: 72:072, 72:101, or equivalents; junior standing or consent of instructor.

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 hours credit. Prerequisite: 72:101 or equivalent.
72:126(g). 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(g). The Comedy from Moliere to 1890 — 3 hrs.
Plays from Moliere, 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 Centuries — 3 hrs.
Novels from Balzac, Stendhal, Flaubert, Proust, Robbe-Grillet and others. Prerequisite or corequisite: 72:101 or equivalent.

72:146(g). The Drama since 1890 — 3 hrs.
Plays from Romain, Pagnol, Claudel, Giraudoux, Anouilh, Sartre, Beckett, and others. Prerequisite or corequisite: 72:101 or equivalent.

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.

Correction of and practice in producing French sounds, intonation rhythm and stress to minimize foreign accent. Prerequisites: 72:051 and 72:061 or equivalent.

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, scholarly and professional texts), from English to French and French to English. May be repeated once for credit. Prerequisite: 72:101 or equivalent.

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 — 3 hrs.
Study of stylistic devices; examination of principal morphological, syntactical and semantic problems.

Phonology, morphology and syntax of current French. Stress is placed on areas of French structure which cause problems for native speakers of English.

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.

Techniques of interpretation including consecutive and simultaneous translation. Prerequisite: 72:108 or comparable translation skills.

Techniques of translation with journalistic and technical emphases.

72:226. French Graduate 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.

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. comprehensive examinations in French. Prerequisite: graduate standing or approval of instructor.

Various topics will be offered such as Medieval Literature, 16th 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

74:001. Elementary 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 — 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 grammar, enlarges vocabulary and augments basic reading, writing, and speaking skills. Prerequisite: 74:001 or equivalent.

74:052. Composition — 2-3 hrs.
Prerequisite: 74:011 or equivalent.

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 — 3 hrs.
Selected major works of representative German authors. Application of language skills to basic literary analysis. Prerequisites: 74:052; 74:062; or equivalent.

74:090. Teaching German in the Elementary Schools — 1 hr.
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. Bilingual 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 German. Prerequisite: consent of instructor. May be 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. May be repeated once for credit with approval of instructor. Prerequisite or corequisite: 74:001 or equivalent.

74:102(g). Advanced Composition and Grammar Review — 3 hrs.
Improvement of writing skills through composition, in-class grammatical review and individual tutorial sessions. Prerequisite or corequisite: 74:101 or consent of instructor.

74:103(g). Advanced Conversation — 4 hrs.
Development of oral fluency through systematically guided conversations on civilization topics and free conversation on topics of current interest. Structural, morphological and phonetic exercises designed to meet the needs of the individual participant. Corequisite: 74:101 or equivalent.

74:105(g). Stylistics — 3 hrs.
An introduction to stylistics analysis. Development of style in composition through study of excerpts from contemporary German works and literary translations into German. Prerequisite: 74:052 or equivalent; junior standing or consent of instructor.
An introduction to consecutive and simultaneous translation. May be repeated once for credit. Prerequisite: 74:103 or comparable fluency in German.

74:114(g). 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(g). 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 Civilization 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.

74:121(g). Special Topics in Language and Culture — 3 hrs.
Special topics and aspects of the discipline. May be repeated except when topic is identical. Prerequisites: 74:071, 74:101, or equivalents; junior standing or consent of instructor.

74:122(g). Special Topics in Literature — 3 hrs.
Special topics and aspects of the discipline. May be repeated except when topic is identical. Prerequisites: 74:071, 74:101, or equivalents; junior standing or consent of instructor.

74:123(g). Civilization of German-Speaking 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(g). German 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: 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). Contemporary Germany and Austria — 3 hrs.
An in-depth analysis of the political and social developments and cultural trends of post-war Germany (FRG/GDR) and Austria. Prerequisite or corequisite: 74:101 or equivalent.

74:160(g). History of the German Language — 3 hrs.
An introduction to the historical development of German. Prerequisite or corequisite: 74:101 or equivalent.

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 Translation — 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.

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.

Techniques of interpretation including consecutive and simultaneous translation. Prerequisite: 74:107 or comparable translation skills.

Techniques of translation with journalistic and technical emphases.

74:226. German Graduate 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: 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.

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

77:001. Elementary Russian I — 5 hrs.
The basic skills of listening comprehension, reading, speaking and writing, and an introduction to Russian and Soviet culture.

77:002. Elementary Russian II — 5 hrs.
A continuation of 77:001. Prerequisite: 77:001 or equivalent.

Continued development of basic skills with further enlargement of vocabulary to read expository prose. Prerequisite: 77:002 or equivalent.

Completes grammar study and emphasizes vocabulary building through readings and discussion of expository prose. Prerequisite: 77:011 or equivalent.

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. Bilingual Pre-Practicum — 1-6 hrs.
For second- and third-level student. Work with first-level classes which enable student to reinforce basic language skills through direct participation with first-level students. May be repeated, but not to exceed 6 hours. Only 3 credit hours can be applied to a minor in Russian. Prerequisite: consent of instructor.

77:102(g). 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. Prerequisite: 77:012.

77:103(g). Advanced Russian — 3 hrs.
Structure of the Russian language, listening comprehension, speaking and writing. Prerequisite: 77:102 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 Turgenev, Fet, Nekrasov, Grigoriev, Balмонт, 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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites/Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>78:001</td>
<td>Elementary Spanish I — 5 hrs.</td>
<td></td>
<td>For beginners. Not recommended for students who have had two or more years of Spanish in high school or the equivalent.</td>
</tr>
<tr>
<td>78:002</td>
<td>Elementary Spanish II — 5 hrs.</td>
<td></td>
<td>Continuation of 78:001. Not recommended for students who have had three or more years of Spanish in high school or the equivalent.</td>
</tr>
<tr>
<td>78:051</td>
<td>Composition I — 2-3 hrs.</td>
<td></td>
<td>Prerequisite: 78:051 or the equivalent.</td>
</tr>
<tr>
<td>78:052</td>
<td>Composition II — 2-3 hrs.</td>
<td></td>
<td>Continuation of 78:051, leading to free composition. Prerequisite: 78:051 or equivalent; corequisite: 78:061 or other intermediate course with approval of department head.</td>
</tr>
<tr>
<td>78:061</td>
<td>Conversation I — 2-3 hrs.</td>
<td></td>
<td>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: 78:051 or equivalent; corequisite: 78:061 or other intermediate course with approval of department head.</td>
</tr>
<tr>
<td>78:062</td>
<td>Conversation II — 2-3 hrs.</td>
<td></td>
<td>Continuation of 78:061, with wider range of subjects, vocabulary and structures. Prerequisite: 78:061 or equivalent; corequisite: 78:062 or other intermediate course with approval of department head.</td>
</tr>
<tr>
<td>78:071</td>
<td>Introduction to Hispanic Literature (Prose) — 3 hrs.</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>78:072</td>
<td>Introduction to Hispanic Literature (Drama and Poetry) — 3 hrs.</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>78:090</td>
<td>Teaching Spanish in the Elementary School — 1 hr.</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>78:091</td>
<td>Bilingual Pre-Practicum — 1-6 hrs.</td>
<td></td>
<td>For second- and third-level students. Work with first-level classes which enables student to reinforce basic language skills through direct participation with first-level students. 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.</td>
</tr>
<tr>
<td>78:101(g)</td>
<td>Advanced Composition — 3 hrs.</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>78:102(g)</td>
<td>Commercial Spanish — 3 hrs.</td>
<td></td>
<td>Vocabulary and format for written correspondence in Spanish with emphasis on commercial vocabulary and idioms. Prerequisite: 78:052 or equivalent.</td>
</tr>
<tr>
<td>78:103(g)</td>
<td>Advanced Conversation — 4 hrs.</td>
<td></td>
<td>Development of oral fluency through systematically guided conversations on civilization topics and free conversation on topics of current interest. Structural, morphological and phonetic exercises designed to meet the needs of the individual participant. Co-requisite: 78:101 or equivalent.</td>
</tr>
<tr>
<td>78:105(g)</td>
<td>Stylistics — 3 hrs.</td>
<td></td>
<td>An introduction to stylistic analysis. Development of style in composition through study of excerpts from the contemporary Spanish works and literary translation into Spanish. Prerequisite or corequisite: 78:071 or 78:072; 78:101; or equivalents.</td>
</tr>
<tr>
<td>78:107(g)</td>
<td>Introduction to Interpreting — 3 hrs.</td>
<td></td>
<td>An introduction to consecutive and simultaneous translation. May be repeated once for credit. Prerequisite: 78:103 or comparable fluency in Spanish.</td>
</tr>
<tr>
<td>78:111(g)</td>
<td>Latin American Literature — 3 hrs.</td>
<td></td>
<td>Trends in Latin American Literature and representative authors. Prerequisites: 78:071 or 78:072; 78:101; or equivalents.</td>
</tr>
<tr>
<td>78:112(g)</td>
<td>Contemporary Spanish Literature — 3 hrs.</td>
<td></td>
<td>Peninsular novel, essay and drama since the Generation of '98. Prerequisites: 78:071 or 78:072; 78:101; or equivalents.</td>
</tr>
<tr>
<td>78:120</td>
<td>Ibero-American Civilization for Business Students — 3 hrs.</td>
<td></td>
<td>An introduction to the civilization, geography, politics and economics of the Portuguese and Spanish-speaking countries. Taught in English. Does not count toward a major or minor in Spanish.</td>
</tr>
<tr>
<td>78:121(g)</td>
<td>Spanish Media — 3 hrs.</td>
<td></td>
<td>Provides opportunity to reinforce and expand basic knowledge of the language through reading, writing, and discussing contemporary and realistic issues using Spanish mass media (e.g., newspapers, magazines, radio, television, and film). Prerequisite: 78:101 or equivalent.</td>
</tr>
<tr>
<td>78:122(g)</td>
<td>Special Topics in Literature — 3 hrs.</td>
<td></td>
<td>Special topics and aspects of the discipline. Prerequisites: 78:071 or 78:072; 78:101; or equivalents; junior standing or consent of instructor. May be repeated, except when topic is identical.</td>
</tr>
<tr>
<td>78:123(g)</td>
<td>Spanish Civilization — 3 hrs.</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>78:124(g)</td>
<td>Special Topics in Language and Culture — 3 hrs.</td>
<td></td>
<td>Special topics and aspects of the discipline. May be repeated, except when topic is identical. Prerequisites: 78:071 or 78:072; 78:101; or equivalents; junior standing or consent of instructor.</td>
</tr>
<tr>
<td>78:125</td>
<td>Modern Mexico — 3 hrs.</td>
<td></td>
<td>A study of the geographic, socio-economic, historico-political aspects of contemporary Mexico as reflected in its art, folklore, and culture.</td>
</tr>
<tr>
<td>78:126(g)</td>
<td>Spanish Summer Symposium: (Topic) — 2-6 hrs.</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>78:130(g)</td>
<td>Golden Age Literature — 3 hrs.</td>
<td></td>
<td>Outstanding literary works of this period, including prose, drama, and poetry. Prerequisites: 78:071 or 78:072; 78:101; or equivalent.</td>
</tr>
<tr>
<td>78:132(g)</td>
<td>Golden Age Drama and Lyric — 3 hrs.</td>
<td></td>
<td>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 Calderon, and the poetry of Garcilaso de la Vega, Gongora, Quevedo, Fray Luis de Leon, and San Juan de la Cruz. Prerequisites: 78:071 or 78:072; 78:101; or equivalent.</td>
</tr>
<tr>
<td>78:134(g)</td>
<td>Nineteenth Century Spanish Literature — 3 hrs.</td>
<td></td>
<td>Study of Romanticism, Realism, and Naturalism. Prerequisites: 78:071 or 78:072; 78:101; or equivalents.</td>
</tr>
<tr>
<td>78:139(g)</td>
<td>Theatre — 3 hrs.</td>
<td></td>
<td>Peninsular and Latin American theater from its origin to the present. Prerequisites: 78:071 or 78:072; 78:101; or equivalents.</td>
</tr>
<tr>
<td>78:140(g)</td>
<td>Latin American Civilization — 3 hrs.</td>
<td></td>
<td>The culture of Latin America as shaped by its geography, history, and prehistory, and as revealed in its arts, sports, customs, traditions and economic, social and political institutions. Prerequisite or corequisite: 78:101 or equivalent.</td>
</tr>
</tbody>
</table>
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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.
Numeration systems, operations and properties of the whole and rational number systems, geometry and measurement; problem solving involving these concepts. Models appropriate to elementary school mathematics are used to represent each topic.

80:040. Basic Collegiate Mathematics — 4 hrs.
Fundamental mathematical concepts; functions and graphs; solutions of equations; elementary trigonometry; systems of equations and inequalities; matrices and determinants. Applications.

80:043. Analysis for Business Students — 3 hrs.
Analysis of rational functions. Analysis and interpretation of graphs. Exponential and logarithmic functions. Linear systems, linear programming, matrices, and determinants. Mathematical induction and conic sections. No credit for students with credit in 80:046.

80:045. Elementary Analysis — 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.

80:052. 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.

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.

Continuation of 80:061; which is a prerequisite.

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.

Introduction to mathematical reasoning, sets, relations and functions with applications in computer science. Prerequisites: 80:050 or 80:060; 81:070 or equivalent.

80:076. Linear Algebra for Applications — 3 hrs.
Gaussian elimination; matrix algebra; vector spaces, kernels, and other subspaces; orthogonal projection; eigenvalues and eigenvectors. Prerequisite: 80:060.

Interest, annuities, and life insurance. Prerequisite: 80:040 or consent of instructor.

The components of mathematical modeling. The formulation, interpretation and testing of models. Prerequisite: four years of college preparatory mathematics, or 80:046.

80:109(g). Readings in Mathematical Literature — 2 hrs.
May be repeated for credit. Prerequisite: departmental approval.

80:111(g). Introduction to Analysis for Elementary Teachers — 4 hrs.
Real number system, equations, inequalities, functions and their graphs, systems of equations and inequalities. Using models to represent these topics and for applications. Prerequisites: 80:030; junior standing or departmental consent.

80:112(g). Introduction to Geometry and Measurement for Elementary Teachers — 4 hrs.
Analysis and description of two- and three-dimensional geometric concepts. Intuitive, direct and indirect proofs and applications of geometric principles. Rigid transformations and symmetry. Topics from measurement, including perimeter, area and volume. Prerequisites: 80:030; junior standing or departmental consent.

80:113(g). Topics in Mathematics for Elementary Teachers — 3 hrs.
Topics will be selected from the following: proportions, percent, number theory, modular arithmetic, sequences, common formulas and their applications as they relate to elementary school mathematics. Prerequisites: 80:030; junior standing or departmental consent.

80:114(g). Problem Solving in Mathematics for Elementary Teachers — 3 hrs.
Polya model for problem solving including the application of strategies as tools in this process. Using mathematics to model a variety of applications to real world problems. Prerequisites: 80:113 and 81:037.

80:120(g). Elementary Game Theory — 3 hrs.
Zero and non-zero sum games. Games with and without saddle points. Strategies, linear programming, games with complete and incomplete information. Particular interest to students in business and social science. Prerequisites: 80:040; junior standing or departmental consent.

Probability, statistics, non-metric geometry, and measurement, including the metric system, as they relate to the K-8 mathematics curriculum. Prerequisite: 80:030.

Effective instructional models and strategies for teaching elementary school mathematics. Using and supplementing mathematics materials within a sound psychological framework for making instructional decisions. Prerequisite: 80:030.

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 or departmental approval.

80:137. Action Research for Elementary School Mathematics Teachers — 1 hr.
Planning, conducting assessments, providing instruction and evaluating instructional effectiveness for selected mathematics topics in the elementary school curriculum. Prerequisite: 80:134 or 80:190.

80:140(g). Intermediate Mathematical Analysis 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(g). Intermediate Mathematical Analysis II — 3 hrs.

80:144(g). Elementary Number Theory — 3 hrs.
Topics from prime numbers, elementary theory of congruence, continued fractions. Diophantine equations. Fibonacci numbers, Pell's equation, the golden rectangle. Pythagorean triples and transcendental numbers. Prerequisite: 80:046 or 81:111; junior standing or departmental approval.

80:147(g). Advanced Calculus I — 3 hrs.

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(g). Differential 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. Prerequisites: 80:062 or 80:063; junior standing or consent of instructor.

80:150(g). Partial Differential Equations — 3 hrs.
A study of applied partial differential equations using heat, wave and potential equations as 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 numbers, central limit theorem. Prerequisite: 80:061.

80:154(g). Introduction to Stochastic Processes — 3 hrs.

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. Prerequisites: 80:062 or 80:063; junior standing or consent of instructor.

80:160(g). Modern Algebra I — 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(g). Modern Algebra II — 3 hrs.
A continuation of 80:160. Includes groups with operators, modules over rings, Sylow theorems, composition series, semi-simple and simple rings, field theory and introduction to Galois theory. Prerequisite: 80:160.

80:163(g). Boolean Algebra and Lattices — 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: 80:160, 80:165 or 80:169.

80:165(g). Introduction to Modern Geometries — 4 hrs.
Foundations of geometry; basic concepts of Euclidean and non-Euclidean geometries. Prerequisite: 80:060 or equivalent.

80:166(g). Geometric Convexity — 3 hrs.
Basic concepts and properties of convex sets in two, three, and higher dimensions. The synthetic and algebraic aspects of convexity. Applications to maxima-minima problems in geometry, graph theory and linear programming. Prerequisite: 80:165.

80:167(g). Topology I — 3 hrs.

80:168(g). Topology II — 3 hrs.
A continuation of 80:167. Two- and n-dimensional 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(g). 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(g). 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.

Sampling distribution theory, point and interval estimation, Bayesian estimation, statistical hypotheses including likelihood ratio tests and chi-square tests, selected nonparametric methods. Prerequisites: 80:062; 80:152.

80:175(g). Mathematical Statistics II — 3 hrs.
Regression analysis, analysis of variance, time series methods. 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 ordinary 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: 80:050; 81:070; junior standing or departmental approval.

80:180(g). History of Mathematics: To the Calculus — 3 hrs.
A survey of the mathematical activities of mankind to the advent of the calculus in the 17th century. The motives, influences, and methods affecting the development of algebra, geometry, and number theory in Mesopotamian, Egyptian, Greek, Islamic, and eastern civilizations. Prerequisite: junior standing or departmental consent.

80:181(g). Philosophy 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(g). Introduction to Set Theory — 3 hrs.

80:183(g). Mathematical Logic II — 3 hrs.

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 80:169 or 81:070; and 80:061 or consent of instructor.

A survey of the mathematical activities of mankind from the development of calculus in the 17th century. The rise of analysis, and the development of modern algebra, non-Euclidean geometries, and the general axiomatic method in the 19th century. Set theory, topology, mathematical logic, and other integrating developments in 20th century mathematics. Prerequisites: 80:061; junior standing 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.
Isometries and similarity transformations in the Euclidean plane and Euclidean space. Groups, subgroups, and normal subgroups of transformations. The classification of isometries. Applications to problems in geometry and physics, and to the analysis of such concepts as symmetry, congruence, and similarity. Prerequisites or corequisites: 80:160; 80:165.

Teaching strategies for grades 7-12; roles of mathematics content and learning psychology in the secondary teaching situation. Prerequisites: 20:018; 20:040; 25:050; and 80:060.

80:191(g). Contemporary Mathematics Curricula — 1-2 hrs.
Study and evaluation of current materials designed for instruction in selected topics from the K-12 mathematics curriculum. Prerequisite: 80:134 or 80:190.

80:192. Mathematics for Elementary Students with Special Needs — 1 hr.
Assessing and providing appropriate mathematics for students with special needs. Prerequisite: 80:134 or 80:190.
80:193(g). Linear Algebra — 3 hrs.
Determinants, eigenvalues and eigenvectors, minimal polynomials, the Cayley-Hamilton theorem, canonical forms, inner product spaces, the Gram-Schmidt orthonormalization process. Prerequisite: 80:161.

80:197(g). 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.


80:201. 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.


80:203. Complex Analysis I — 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 Analysis II — 3 hrs.

A mathematical study of the integers: induction, divisibility, prime numbers, congruences, quadratic reciprocity, multiplicative functions.

Course content usually generated by participants. Typical topics are problems dealing with: individualizing instruction, assessing growth, major concepts and skills in the elementary mathematics program. Prerequisite: departmental approval.

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. Topics in Abstract Algebra — 3 hrs.
Topics from groups, rings and ideals, fields. Galois theory, introduction to homological algebra, infinite Abelian groups and linear algebras. 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. May be repeated with consent of instructor. Prerequisite: 80:165.

Topics chosen from correlation and regression analysis, analysis of variance and co-variance, non-parametric methods, order statistics. Prerequisite: consent of instructor.

Experimental and current curricula; purpose, organization and design considered with methods of implementing curricular change.

Exploration of findings of selected learning theories as these apply to both content and pedagogy in the elementary mathematics program.

Course content decided by participants and instructor. Both mathematics content and methodology of the junior high school considered. May be repeated once for credit. Prerequisite: departmental approval.

Course content decided by participants and instructor. Both mathematics content and methodology of the senior high school considered. May be repeated once for credit. Prerequisite: departmental approval.

Identification, characteristics, and needs of students with learning problems together with coordinated work with appropriate students. Prerequisite: 80:134 or 80:190.

80:295. Teaching Gifted and Talented Students in Mathematics — 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
Introduces basic computer concepts; survey of available computer equipment and examines current uses of computers in business, education, etc., and their future potential; and study of implications to society. Emphasis on hands-on computer experiences.

Computer literacy. Introduction to LOGO and BASIC. Using computers and calculators for teaching elementary school mathematics.

81:070. Introduction to Programming — 3 hrs.
An introduction to programming using a problem-oriented language (FORTRAN or BASIC); includes some treatment of style and structure. Approach is suitable for general audience.

An introduction to algorithms and their implementation using the language Pascal. Includes significant emphasis on program design and style. Approach is suitable for computer science majors and minors. Prerequisite: 81:070 or one year of high school programming or equivalent.

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.

81:110. COBOL — 3 hrs.
Basic features of COBOL and the report writer feature are examined; emphasis on data processing techniques and structured programming methods. Includes file structures, sorting, information retrieval and the design of reports. Concepts illustrated by business-type examples. Prerequisite: 81:081.

81:111(g). File Processing — 3 hrs.
Study and comparison of access methods and file organization. Techniques for file creation, updating, accessing, and processing; COBOL used for exercises. 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 I/O operations. Prerequisite: 81:082.

Representation and organization of information by logical structures such as vectors, trees, strings and graphs; alternative forms of logical structures and their realization as data structures in memory or secondary storage; and abstract data types. Analysis of algorithms and programs for manipulating these structures. Prerequisites: 80:074; 81:082.

81:132(g). Management of Data — 3 hrs.

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.
A systematic view of operating systems; emphasis on understanding and use of commands and utilities. Includes fundamental operating system concepts and interfaces, virtual machines, networks and distributed systems, database systems, library software, and user environments or work benches. Command and job control languages will be examined. Prerequisites: 81:120; 81:130.

81:145(g). Software Design 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 evaluating a software project; also includes software metrics and human input. Prerequisites: 81:145; senior status or consent of instructor.

81:155(g). Compiler Design — 3 hrs.
Introduction to the analysis of programming languages and construction of translators. Prerequisite: 81:135.

81:160(g). Operating Systems — 3 hrs.
Functions, issues, implementations, and uses of operating systems; emphasis on the fundamental concepts applicable to a variety of systems. Management of storage, files, processes, devices, and systems will be examined. Case studies of significant operating systems. 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.

Application of classroom learning to field experience. Credit may not be applied to major or minor. Available only on credit/no-credit basis.

81:190. The Teaching of Secondary Computer Science — 3 hrs.
Secondary (7-12) computer science curricula: methods and research in the teaching and learning of computer science; role of the computer science teacher in the schools. Prerequisites: 20:018; 20:040; 25:050; and 81:135.

Survey of the history and applications of computers, the field of computer science, and the use of computers in education. Prerequisite: departmental consent.

Current and experimental curricula in secondary school computer science. Purposes, design, and implementation of these curricula. Methods of implementing curricular change in secondary computer science. Prerequisites: 20:214; 81:130; 81:251.

Problems relating to content, methods, and management in high school computer science will be considered. Specific content to be determined by students and instructor. Prerequisites: 81:130; 81:251.

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 investigation, 1 period.

82:031. Activity-Based Physical Science — 4 hrs.
An activity-based introduction to concepts and processes in physical science using models as a central theme. Lecture/discussion, 2 periods; laboratory, 2 periods; plus 1 hour arranged. Prerequisite: a student must have satisfied University of Northern Iowa's high school course requirements in English and mathematics or completed developmental courses in these academic areas before registering for Sphere I courses.

82:032. Activity-Based Life Science — 4 hrs.
An activity-based approach to how living things obtain energy and maintain energy flow through organisms and ecosystems. Lecture/discussion, 2 periods; laboratory, 2 periods; plus 1 hour arranged. Prerequisite: must have completed Sphere I of the General Education program.

82:113(g). Techniques for Science Teachers — 1-3 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 Science — 3 hrs.
For majors in elementary or middle school/junior 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 surveyed. Prerequisite: junior standing.

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.

Emphasizes the relationships and interactions of the physical, biological, technological, and cultural components of the environment. Selected interdisciplinary problems are studied. The course builds upon the previous university experience of the student and seeks to develop environmental literacy. Prerequisite: courses from Sphere I and Sphere II and junior standing.

82:175. The Nature of Science — 2 hrs.
Science as a field of subject matter, with consideration of its nature, development, and methods. Using a chronological approach with a philosophical emphasis. Special attention is paid to the interrelations of the various sciences, the relations of science (including the social sciences and psychology) to other fields, such as philosophy, religion, and art, and the interactions of science and these other areas of thought and culture throughout history and in current times. Discussion, 2 periods.

82:189. 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.

Nature of science in its descriptive, technological and investigative aspects as they relate to the development of a philosophy of teaching; interrelations of various sciences: psychological theories of learning science and how they relate to developing instructional strategies; evaluation techniques common to all sciences. 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. Corequisite: 82:196.

82:194(g). Current Curricula in Junior High Science — 2 hrs.
Discussions and laboratory experiences in the science curricula being used in today's junior high classrooms. The history and nature of national curricula projects will be examined and compared to commercial programs from various publishers. Methods of evaluation will also be discussed. Prerequisite or corequisite: 21:142; or 82:190 and 82:196. Prerequisite: 5 hours in science or consent of instructor.

82:195. Science Teaching Colloquium — 1 hr.
Presentation and discussion of current topics related to elementary and secondary science teaching, including scientific and educational research, teaching philosophies, innovative teaching techniques, etc. Course consists of 14 meetings over a two-semester period. For Science (Teaching) majors, to be taken prior to student teaching. Offered only on a credit/no credit basis.

82:196. Current Technologies in Science Teaching — 1 hr.
Exploration of current technologies available to enhance teaching in the sciences. Primary attention given to microcomputer and video applications and the analysis of available supplemental materials. Other technologies are explored as appropriate. Discussion, one period. Prerequisite: 24:020. Corequisite: 82:190.


82:200. History and Philosophy of Science — 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.

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: 29:040 or equivalent.

Application of environmental/conservation education content and process to curriculum and program development. Students will formulate or revise programs for their own employment situations. To be offered during the summer at Iowa Teachers Conservation Camp. Prerequisites: 84:103 or 84:104, and two years of experience as a teacher or in an occupation related to environment/conservation education.
82:270. Special Problems in Science Education — 1-6 hrs.
Problems selected according to needs of students. Prerequisite: approval of the chairperson of the Science Education Faculty.

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 Science 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: 21:101 or 82:190 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, metabolism, and human genetics. Lab., 2 periods. Prerequisite or corequisite: 84:014 or equivalent.

84:021. LIFE: Environmental Relationships — 3 hrs.
People as an integral part of the balance of nature, not as external manipulators. Lecture/discussion, 3 periods. No credit on biology majors or minors.

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.

Basic concepts of biology including structure, development, energy flow, ecology, evolution, unity and diversity of life, genetics and reproduction. No credit on biology majors or minors or for students with post-high school courses in biology, botany, or zoology. Lecture/discussion, 3 periods.

84:030. Introduction to Anatomy and Physiology — 4 hrs.
Fundamentals of the anatomy and physiology of the human body. No credit on biology majors or minors. Lecture, 3 periods; lab, 2 periods. Prerequisite: acceptance into Hawkeye Institute of Technology allied health program or approval of department head.

Structure and function of the organ systems of the human body. For students in allied health fields or other university approved programs. Others must have approval of department head. No credit on biology majors or minors. Discussion, 3 periods; lab, 2 periods.

A continuation of 84:031. For students in allied health fields or other university approved programs. Others must have approval of department head. No credit on biology majors or minors. Discussion, 3 periods; lab, 2 periods. Prerequisite: 84:031.

84:033. Principles of Microbiology — 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 the sciences. No credit on biology majors or minors. Sections may be offered exclusively for nurses in training. Discussion, 2 periods; lab, 2 periods.

84:051. General Biology I — 4 hrs.
Study of organismic biology emphasizing evolutionary patterns 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.

84:054. Field Natural History — 2 hrs.
Fieldwork, laboratory, and field activities for students in the natural sciences. Designed for students majoring in or having an interest in the natural sciences. No credit on biology majors or minors. Prerequisite: 84:052.

84:055. Conservation of Iowa Resources — 3 hrs.
Natural resources of Iowa, including soil, forest, wildlife, minerals and water, their interrelationships with the economic 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.

Field experiences and class activities deal with various natural resource problems and issues. Topics such as forests, wildlife, ecological relationships, soils, water and mineral resources will be studied. May be repeated using different topics for a maximum of 6 hours. Prerequisite: junior standing.

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.

Development of vertebrate organisms. Formation and development of germ cells; fertilization; growth and differentiation. Discussion, 2 periods; lab., 4 periods. Prerequisite: 84:106.

84:112(g). Invertebrate Zoology — 4 hrs.
Anatomy and physiology of type forms of the invertebrate phyla. Discussion, 2 periods; lab., 4 periods. Prerequisites: 84:052 and junior standing.

Organ system functions in animals: physical and chemical basis for functional comparison of organ system function especially in vertebrates. Discussion, 3 periods; lab., 2 periods. No credit for student with credit in 84:138. Prerequisites: 84:052; either 86:050 or 86:120 and 86:121; one semester of physics recommended.

84:117(g). Endocrinology — 3 hrs.
Hormonal control of various organ functions including cellular effects and biochemistry of endocrine organs. Graduate students must enroll in "Endocrinology Laboratory." Discussion, 3 periods. Prerequisites: 84:114 or 84:138; 84:128 or 86:050.

84:118(g). Endocrinology Laboratory — 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 Morphology — 4 hrs.
Form and function in vegetative and reproductive organs in all plant divisions from algae to flowering plants, and their importance in evolutionary thought and plant classification. Lecture, 3 periods; lab, 3 periods. Prerequisite: 84:052.

84:122. Plant Physiology — 4 hrs.
Functional aspects of plant processes related to composition, metabolism, transport mechanisms, growth and development. Discussion, 2 periods; lab., 5 periods. Prerequisites: 84:040 or equivalent; 84:052; 86:048 or 86:070.

84:124(g). Introduction to Mycology — 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 hardiness, 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.
64:131(g). Animal Behavior — 4 hrs.
Psychological, physiological, sociological, and ethological approaches to behavior; relationship between behavior and environment, and experimental variables. Discussion, 3 periods; lab., 2 periods. Prerequisites: 84:052 and junior standing.

64:132(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.

64:135(g). Topics in Cell Biology — 2 hrs.
Organization and function of sub-cellular organelles and assemblies of eukaryotic cells. Discussion, 2 periods. Prerequisite: 84:128 (may be taken concurrently).

Functions of organ systems of the human body. Discussion, 2 periods; lab, 2 periods. No credit for students with credit in 84:114. Prerequisite: 84:052.

This course focuses on functions of organ systems including their cellular-molecular basis and emphasizes the interrelatedness of organ system functions in maintaining homeostasis of the organism. Pathological physiology of organ systems is included and is contrasted with the normal processes. Integrating processes and systems are emphasized. No credit for biology majors and minors. Prerequisites: 84:031 and 84:032 or equivalent.

64:140(g). Genetics — 4 hrs.
Analytical approach to classical, molecular and population genetics. Discussion, 3 periods; lab., 2 periods. Prerequisites: 84:052; 86:050 or 86:120 and 86:121; 86:040 or equivalent.

64:142(g). Organic Evolution — 2 hrs.
Conceptual overview of evolutionary theory, mechanisms of the evolutionary process, speciation and major evolutionary steps. Prerequisite: 84:140.

64:146(g). Developmental Genetics — 4 hrs.
Patterns and principles of animal development. Emphasis on current concepts in developmental genetics. Discussion and lab., two 3-hour periods. Prerequisites: 84:052 and junior standing.

64:151(g). General Microbiology — 4 hrs.
Physiology, morphology, taxonomy, immunology, and pathogenicity of microbes, with applications to medicine, agriculture, sanitation, and industry. Discussion, 2 periods; lab., 4 periods. Prerequisites: 84:052; 86:048 or 86:070; junior standing or departmental approval.

64:157(g). Biostatistics — 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 statistical packages. Lecture, 2 hours; lab., 2 hours. Prerequisites: 84:046 or equivalent, junior-level standing and two biology courses beyond the introductory sequence, or permission of the instructor.

Identification and natural history of Iowa vertebrates. Field trips emphasized. Discussion, 2 periods; lab. and field work, 4 periods. Prerequisite: 84:052.

64:166(g). Plant Systematics — 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.

Relationship of organisms to their environment with emphasis upon the principles of population, community and ecosystem structure and dynamics. Discussion, 2 periods; lab., 3 periods. Prerequisite: 84:052.

64:170. Entomology — 3 hrs.
Introduction to the biology of insects. Discussion, 2 periods; lab., 2 periods. Prerequisite: 84:052.

64:172(g). Plant Anatomy — 4 hrs.
Structure, function, and differentiation of cells and tissues in stems, roots, leaves and flowers of vascular plants. Lecture, 2 periods; lab., 4 periods. Prerequisite: 84:052 and junior standing.

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.

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.

64:180(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.

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.

64:183(g). Topics in Molecular Biology — 1 hr.
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. Prerequisite: 84:128 or 84:140.

64:185. 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.

64:186. Seminar — 1 hr.

64:190. Undergraduate Research in Biology — 1-3 hrs.
Research activities under direct supervision of Biology faculty members. Credit determined prior to registration based upon student proposal with agreement 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.

64:193(g). Current Curricula in Biology — 2 hrs.

64:195. Internship/Field Experience — 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 credit/no credit basis; no credit allowed on major.

64:197. 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. Prerequisite: departmental approval.

64:198. Independent Study.

64:202. Graduate Colloquium — 1 hr.
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.

Biological techniques of the teacher of biology. Lab., 6 periods.

64:220. Advanced Plant Morphology — 4 hrs.
Life histories of representatives of the plant phyla. Morphological and physiological advancements which have resulted in the gradual evolution of flowering plants. Discussion, 2 periods; lab. and field work, 4 periods. Prerequisite: 84:120.

64:225. 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.

64:230. Special Problems in Biology — 1-6 hrs.
Credit determined at registration. (Problems in biology other than those for theses or in regular curricular offerings.) Prerequisite: departmental approval; 84:292 recommended.
Selected organ systems explored in detail with respect to their function; emphasis on current research information for the organ systems studied. Discussion, 1 period. 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.

Response of higher organisms to the physical environment. 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; 84:186 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 acceptable 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.

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

86:010. Principles of Chemistry — 3-4 hrs.
Basic concepts of chemistry, the periodic table and its relation to atomic structure and chemical properties. How the understanding of changes in matter and energy is important in both living and non-living systems. The work of the chemist and the interactions of chemistry with other activities of humankind. Discussion, 3 periods; lab., 2 periods. May be taken without laboratory for 3 hrs. credit. No credit for student with credit in any college chemistry course. Prerequisite: a student must have satisfied University of Northern Iowa’s high school course requirements in English and mathematics or completed developmental courses in these academic areas before registering for 86:100.

86:020. Chemical Technology — 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.

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.

86:041. Introductory Physiological 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 non-metallic 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. For preprofessional students and science majors with a special interest in chemistry. Prerequisite: 86:044 or equivalent.

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.

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.

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. Prerequisite: 86:061.

86:1070. General Chemistry 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 Chemistry 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.

Purification and identification techniques as well as some representative organic reactions. Corequisite or prerequisite: 86:120. Lab., 6 periods.

Continuation of 86:120. Prerequisite: 86:120. Discussion, 3 periods.

Continuation of 86:121. Preparation and functional group analysis. Lab., 6 periods. Prerequisites: 86:120; 86:121. Prerequisite or corequisite: 86:123.

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 Analysis I — 4 hrs.
Instrumental methods of analysis. Theory of instrumentation and practical experience in such areas as potentiometric titration, polarography, electroanalysis, spectrophotometry, and gas 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 Analysis 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(g). Physical Chemistry I — 3 hrs.
Application of the laws of physics to chemical phenomena. Prerequisite: 80:060, 88:056 or 88:131, or permission of the instructor; junior standing or departmental approval. Discussion, 3 periods.

86:141(g). Physical Chemistry II — 3 hrs.
Continuation of Physical Chemistry I which is prerequisite. 86:061 is recommended as a prerequisite, but may be taken concurrently. Discussion, 3 periods.

86:142(g). Principles of Physical Chemistry — 3 hrs.
Physical aspects of chemistry for the needs of the high school chemistry teacher, and for students in the biological sciences. Discussion, 3 periods. Prerequisite: 86:046; 86:048 or 86:070; junior standing or departmental approval. Recommended: 88:054.
86:143(g). Physical Chemistry Laboratory — 1-3 hrs.
Techniques of physical measurements related to chemistry. Meets 3-9 hours per week. A minimum of 2 credit hours shall be taken for the Bachelor of Science and Bachelor of Arts Chemistry Major programs. Those with credit in 86:142 may take one hour credit. Prerequisites: 86:132 and 86:140; 86:141 may be taken concurrently.

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. Discussion, 3 periods. Prerequisite: 86:120; junior standing or departmental approval.

86:145(g). Inorganic 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.

86:154(g). Biochemistry I — 4 hrs.
Structure and function of biologically important molecules including amino acids, proteins, carbohydrates, lipids, and nucleic acids; intermediary metabolism; enzyme kinetics. Lecture, 4 periods. Prerequisite: 86:123.

86:155(g). Biochemistry II — 2 hrs.
Continuation of Biochemistry I. Bioenergetics, photosynthesis, additional metabolic pathways, enzyme mechanisms, macromolecular biosynthesis, recombinant DNA, and current topics in biochemistry. Lecture, 2 periods. Prerequisite: 86:154. Prerequisite or corequisite: 86:141 or 86:142.

86:156(g). Biochemistry Laboratory — 2 hrs.
An introduction to biochemical methodology. Includes chromatographic and electrophoretic purifications of proteins, lipids, and nucleic acids; chemical characterizations of amino acids, peptides, carbohydrates, and fatty acids; study of enzyme kinetics. Laboratory, 6 periods. Prerequisite or corequisite: 86:154.

Use of infrared and ultraviolet-visible spectroscopy, proton and carbon magnetic resonance, mass spectrometry, and other physical and chemical methods for the assignment of structure to organic compounds. Discussion, 3 periods. Prerequisites: 86:123; 86:140. Prerequisite or corequisite: 86:141.

86:180. Undergraduate Research in Chemistry — 1-3 hrs.
Credit determined at registration. May be repeated only once for credit. Prerequisite: 86:140 and approval of department head. Prerequisite or corequisite: 86:141.

Materials and methods in chemistry pertinent to modern high school teaching programs. Evaluation techniques specific to the teaching of chemistry. Discussion, 2 periods. Prerequisite or corequisite: 82:190.

Product analysis, kinetics, and mechanism of organic reactions. Discussion, 3 periods. Prerequisites: 86:123; 86:141.

Lecture course on various aspects of coordination compounds. Prerequisite: 86:141; 86:144 or 86:145.

Lecture course on wave mechanics as applied to atomic and molecular structure, with emphasis on experimental spectroscopy. Prerequisite: 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.

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 — 3 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; must have completed Sphere I of the General Education program.

87:011. Astronomy Laboratory — 1 hr.
Students enrolling in 87:010 may enroll in this laboratory. Involves fundamentals of observation, use of introductory equipment, use of almanacs, atlases, and ephemeralides. Some photography will be done. Prerequisites: consent of instructor and concurrent enrollment in 87:010.

87:021. Elements of Weather — 3 hrs.
Meteorological elements and their applications to the environment; interpretation of weather maps and weather data; forecasting and briefing on the daily weather. Discussion, 3 periods. Prerequisite: must have completed Sphere I of the General Education program.

87:031. Physical Geology — 4 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: rock and minerals, geologic processes, and landscape development. Discussion, 2 periods; lab., 2 periods. Prerequisite: a student must have satisfied University of Northern Iowa's high school course requirements in English and mathematics or completed developmental courses in these academic areas before registering for Sphere I courses.

87:032. Life Through Time — 3 hrs.
Origin and development of life through geologic time, with emphasis on evolution, diversity, and how modern life forms and distributions came about. Life treated as a complex system which owes its present state of being to its historical development. Discussion of the fossil record, major extinctions, and methods used by the paleontologist. Discussion, 3 periods. Prerequisite: must have completed Sphere I of the General Education program.

87:033. Geology Field Trip — 1-4 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; progression 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.

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(g). 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 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.

87:115(g). Volcanology — 2 hrs.
Origin, classification, eruptive mechanisms and hazards of volcanoes, and related phenomena. Prerequisites: 87:031; junior standing or departmental approval.
87:125(g). Principles of Paleontology — 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. Discussion, 2 periods; lab., 4 periods. Prerequisites: 84:024 or 87:035; junior standing or departmental approval.

Basic principles of physical and historical geology. Prerequisite: departmental approval.

87:129(g). Structural Geology — 4 hrs.
The origins and mechanics of rock deformation. Description and analysis of structural features. Field work where appropriate. Prerequisites: 87:031; 87:035 and junior standing or consent of instructor. Discussion, 2 periods; lab., 2-3 hour periods.

87:130. Crystallography — 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). Prerequisites: 86:044 or equivalent; knowledge of trigonometry or 80:046.

Crystal chemistry, determinative methods, and systematic description of naturally-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). Prerequisites: 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 87:031 or equivalent; junior standing or departmental approval.

87:135(g). Optical Mineralogy-Petrography — 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, environments 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(g). Geomorphology — 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 87:031 or equivalent; Junior standing or departmental approval.

87:142(g). Igneous Petrology — 4 hrs.
Description, classification, and genesis of igneous rocks. Discussion, two periods; lab., two 3-hour periods. Prerequisites: 80:060; 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, spectrographs, 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). Geology of Iowa — 2 hrs.
Iowa'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). Oceanography — 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. Offered in alternate years. Prerequisites: 87:031 or equivalent; junior standing or consent of instructor.

87:171(g). Environmental Geology — 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 hrs.
Research activities under direct supervision of Earth Science faculty member. Credit to be determined at registration. May be repeated for credit for a 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 4 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.

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.

Problems and area of study selected according to needs of students. Prerequisite: departmental approval.

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

Selected topics are treated so that the ideas of physics can be understood conceptually. 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 sound; electricity and magnetism; light and color; atomic and nuclear structure of matter. Discussion, 3 periods; lab., 2 periods. May not be applied to a physics major or minor. Students may not earn credit in both 88:011 and 88:012. Prerequisite: a student must have satisfied University of Northern Iowa’s high school course requirements in English and mathematics or completed developmental courses in these academic areas before registering for Sphere I courses.

88:012. Elements of Physics — 3 hrs.
Introduces the basic concepts and laws of physics. Primary attention is given to the concept of energy; the fundamental forces of nature, the atomic nature of matter, the atom, and the nucleus. The course will also consider how these concepts developed and examine relationships among science, technology, and society. Discussion, 3 periods. Students may not earn credit in both 88:012 and 88:011. May not apply to physics major or minor. Prerequisite: a student must have satisfied University of Northern Iowa’s high school course requirements in English and mathematics or completed developmental courses in these academic areas before registering for Sphere I courses.

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 holography and laser light; emphasis on readily applied information and techniques. Prerequisite: 88:054 or 88:131.

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.

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 hr.
A laboratory to accompany 88:131 for students who have not taken 88:056. Prerequisite or corequisite: 88:131.

Fundamentals of calculations in engineering and applied physics: arithmetic calculations and dealing with round-off error; units and dimensional analysis; graphical analysis; data reduction; approximate solution of equations; economic calculations. Prerequisites: 88:054 or 88:130. Prerequisite or corequisite: 88:048 or 88:660.

88:120(g). Elementary Atomic and Nuclear Physics — 4 hrs.
Atomic and nuclear structure, elementary particles, radioactivity, wave-particle duality, interactions and detection of radiation. Lower mathematical level than 88:137. Discussion, 3 periods; lab., 2 periods. Cannot apply toward an undergraduate or graduate physics major. Prerequisites: 88:056; junior standing.

A calculus-based course emphasizing the mathematical analysis and solution of problems and typically covering mechanics, oscillations, and waves. Discussion, 5 periods. Prerequisite: one year of high school physics or 88:664. Prerequisite or corequisite: 88:060.

A calculus-based course emphasizing the mathematical analysis and solution of problems and typically covering thermodynamics, electricity, magnetism, and optics. Prerequisite: 88:130. Prerequisite or corequisite: 88:061.

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 energy demands, production, use and distribution; and topics related to noise, thermal, air, water, and radiation pollution. Discussion, 3 periods. Prerequisites: 88:048 or 88:061; 88:665 or 88:131; junior standing or consent of instructor.

88:136(g). Thermodynamics and Statistical Mechanics — 4 hrs.
General principles of classical thermodynamics and applications, e.g., to first-order phase transitions; general principles of statistical mechanics and application, e.g., to the classical ideal gas. Prerequisite: 80:062 or 80:063. Prerequisite or corequisite: 88:137.

Special relativity; quantum phenomena; wave-particle duality; atomic and nuclear structure; properties of solids, interaction of radiation with matter; elementary particles. Prerequisite: 88:131.

88:138. Physics III Laboratory — 1 hr.
Experiments on interactions of photons and electrons, mass and charge of electrons, atomic spectroscopy, nuclear radiation detection and spectroscopy, properties of solids. Prerequisite: 88:056 or 88:061. Corequisite: 88:137.

88:139(g). Elementary Particle Physics — 2 hrs.
Historical survey and basic concepts; elementary particle dynamics; relativistic kinematics; symmetries and conservation laws; Feynman rules; quantum electrodynamics; weak interactions. Prerequisite: 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). Vibrations 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 attenuation. Lectures emphasize theory related to experiments. Fourier analysis is included. Discussion, 2 periods; lab., 2 periods. Prerequisites: 88:061; 88:054 or 88:066; 88:130.

88:152(g). Electronics I — 3 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 conversions, analog and digital data acquisition systems. Discussion, 2 periods; lab., 4 periods. Prerequisites: 88:152; junior standing; or departmental approval.

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 hr.
Imaging by mirrors, lenses and holograms; spectrometers; interference; Fraunhofer and Fresnel diffraction, polarization of light; optical communication using fiber optics and Pocket's cell; spatial and temporal modes of lasers. Corequisite: 88:161.

88:161(g). Optics — 3 hrs.

88:166(g). Mechanics — 4 hrs.

88:167(g). Electromagnetic Fields — 4 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.

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 radiation 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 hr.
Prerequisite: 88:138; corequisite: 88:175.
88 Physics/89 Biology at Lakeside Laboratory
90 Social Science

88:180. Undergraduate Research in Physics — 1-3 hrs.
Research activities under direct supervision to sponsoring staff members.
Prerequisites: departmental approval and at least an overall 2.50 grade point average in all courses applied towards a B.S. physics major and taken to date.

Departmentally approved work in applied physics (as an industrial, medical, or government laboratory) followed by oral and written reports given on the completed work. Offered only on credit/no credit basis. Prerequisites: departmental approval, at least an overall 2.50 grade point average in all courses applied towards a B.S. physics major and taken to date. 

88:185(g). Laboratory Projects — 1-3 hrs.
Experimental activities to meet individual needs and interests not normally included in other courses. Maximum of 3 hours credit may be applied to a physics major or minor. Prerequisite: departmental approval.

88:189(g). Readings in Physics — 1-3 hrs.
Readings/problem in areas of physics (related to interdisciplinary areas) not normally covered in other courses. Maximum of 3 hours may be applied to a physics major or minor. Prerequisite: departmental approval.

Philosophy, methods, materials, and evaluation techniques for high school physics. Discussion, 2 periods. Prerequisite: 8 hours of physics or consent of instructor. Prerequisite or corequisite: 82:190.

88:250. Special Problems in Physics — 1-8 hrs.
Credit determined at registration. Problems selected according to needs of students. Prerequisite: departmental approval.

Critical examination of the philosophy 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.

88:299. Research.

89 Biology at Lakeside Laboratory

The following courses are regularly scheduled at Lakeside Laboratory by staff from the three Regent Institutions. Enrollment is limited and permission of the instructor is required for all courses. Registration may be for undergraduate or graduate credit. Visiting staff may extend the course work offerings in particular summers. For current information, see the annual Iowa Lakeside Laboratory Bulletin usually available from the University of Northern Iowa Department of Biology after February 15 each year. Numbers in parentheses are the Lakeside Laboratory numbers.

89:101(g) (L:101). Field Biology — 5 hrs.
Natural history and principles of ecology of the aquatic and terrestrial ecosystems of the area, including basic taxonomy of the native fauna and flora. Includes field and laboratory techniques. Individual projects included.

89:103(g) (L:103). Aquatic Ecology — 5 hrs.
Survey of local aquatic plants and animals and of aquatic habitats including environmental and community analysis. Emphasis on field work and appropriate methods.

89:104(g) (L:104). Aquatic Ecology II — 5 hrs.
Project work as continuation of 89:103.

89:105(g) (L:105). Plant Taxonomy — 8 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 84:160.

Biology of 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.

Laboratory examination of collections made daily by class in Iowa Lakes Region; correlation made by student of text description with observations of living materials.

89:118(g) (L:118). Field Entomology — 5 hrs.
Introduction to entomology with emphasis on methods of collecting and classifying insects, and on their natural history. Reference collections will be made with classification to order and family. No credit for those with credit in 84:170.

89:119(g) (L:119). Field Biology of Lower Green Plants — 5 hrs.
Field and laboratory investigation of mosses, liverworts, club mosses, quillworts, horsetails, and ferns. Many of these primary mesic plants have their western limits in the variety of habitats in Iowa.

89:207(g) (L:107). Helminthology — 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.

Biology of invertebrates with emphasis on local fresh-water and terrestrial forms, their structure, systematics, and behavior. Methods of collecting, culture, preserving, identifying, emphasis on study of living material. For students with background in invertebrate zoology.

89:215 (L:115). Field Mycology — 5 hrs.
Identification and classification of the common fungi. Techniques for identification, preservation, and culture.

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.

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

90:020. Women, Men, and Society — 3 hrs.
An examination of key issues of gender. Attention will be given to a variety of topics including: ethical issues and gender roles, gender-role stereotyping, male and female roles, sexuality, gender roles in non-Western and minority cultures, and gender roles in United States institutions, e.g., in the nuclear family, religion, and the work place.

90:023. American Civilization — 3 hrs.
An interdisciplinary study of American civilization as a developing society, culture and nation over four centuries. Through an integration of history, literature and the arts, major themes and their interrelationships within the American experience will be identified and analyzed. General Education credit for all students.

90:039. Introduction to Urban 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 hr.
Lectures and readings on the nature of personal and structural violence. The culture, political economy, and technology of war and peace.

90:051. Peace Studies II — 1 hr.
A study of current peacemaking research with emphasis on proposed solutions to problems of war and violence in modern society.

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.
90:280. Social Science Seminar — 3 hrs.
May be repeated for a maximum of 6 hours. Prerequisite: departmental approval.


90:299. Research.

92 Economics

No credit for student who has credit in 92:053 or 92:054. May not be used for credit on major or minor.

Determining and measuring the level of national product; monetary and fiscal policies to stabilize the economy.

Determination of price by demand and supply; distribution of income. Prerequisite: 92:053.

Intermediate level macro-economics. The determinants of aggregate demand, national product and employment; macro-economics objectives and policies. Prerequisites: 92:053; 92:054.

Intermediate level micro-economics. The theory of consumer choice, of the business firm and of resource allocation. Prerequisites: 92:053; 92:054.

92:113(g). Money and Banking — 3 hrs.
Money, commercial banking, the Federal Reserve System and monetary policy. Prerequisites: 92:053; 92:054.

92:116(g). Labor Economics — 3 hrs.
Labor economics, union-management relationships, and public policy toward employer-employee relationships. Prerequisites: 92:053; 92:054.

92:117(g). Public Finance — 3 hrs.
Taxation and government expenditures; fiscal policy. Prerequisites: 92:053; 92:054.

92:135(g). The Organization of American Industry — 3 hrs.
Structure, conduct and performance of firms, industries and market. Policies to maintain competition. Prerequisites: 92:053; 92:054.

Comparative advantage, exchange rates, balance of payments, and trade policies. Prerequisites: 92:053; 92:054.

Examination of the capitalist and socialist economies through the work of their defenders and critics. Prerequisites: 92:053; 92:054.

Soviet economic institutions; operation and performance of the Soviet economic system. Prerequisites: 92:053; 92:054.

92:143(g). Economic Development — 3 hrs.
Theories of underdevelopment: approaches and proposals for development; factors influencing development. Prerequisites: 92:053; 92:054.

92:148(g). Urban and Regional 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. Prerequisites: Junior standing or consent of instructor; 92:053; 92:054.

92:150(g). Monetary Economics — 3 hrs.
Monetary theory, the supply of money, the demand for money, monetary policy, and current monetary issues. Prerequisites: 92:053; 92:054; 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. Prerequisites: 92:053; 92:054.

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. Prerequisites: Junior standing or consent of instructor; 92:053; 92:054.

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. Prerequisites: Junior standing or consent of instructor; 92:053; 92:054.

92:170(g). History of Economic Thought — 3 hrs.
Development of economic theory from the early Greeks to the present time. Prerequisites: 92:053; 92:054.

92:172(g). Post-Keynesian and Institutional Thought — 3 hrs.
An examination of two major alternative strands of economic theory, including their critiques of neoclassical economics. Prerequisites: 92:053; 92:054; junior standing or consent of instructor.

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. Prerequisites: 92:053; 92:054.


92:299. Research.

94 Political Science

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 Political Science — 3 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.

A comparison of contemporary political institutions, processes and ideas in the United States and other selected countries. General Education credit for all students except Political Science majors and minors.

Current political problems/issues; General Education credit for all students except Political Science majors and minors.

94:024. Politics for General 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; Southeastern 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.

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.

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(g). United States Foreign Policy — 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.
A description of international governmental organizations and international operations over time. Emphasis upon federalism, the separation of powers, consent of instructor.

94:135(g). Modern European 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.

94:141(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.
Survey of international law from its development to contemporary issues. Prerequisite: Junior standing or consent of instructor.

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 I — 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-expanding 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(g). 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.

94:153(g). Politics of Bureaucracy — 3 hrs.
Role of the administrative system in public policy process, interaction among agencies, interest groups, overhead control units. Congress, courts, the political parties, mass media, and public opinion. Prerequisites: 94:014; 94:148; junior standing or consent of instructor.

94:154(g). Legislative Process — 3 hrs.
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 Making — 3-4 hrs.
Examination and analysis of domestic and foreign policies of the U.S.A. and selected foreign countries concerning 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.

Examination of Soviet leadership politics from the Russian Revolution to the present. Topical issues include succession politics, the influence of the KGB and the military on leadership politics, elite recruitment and why there are so few women in the Soviet leadership. Prerequisites: 94:164 and junior standing, or consent of instructor.

94:160(g). Western Political Thought — 3 hrs.
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(g). 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 liberalism, socialism, liberalism, conservatism, and fascism. Prerequisite: junior standing or consent of instructor.

Examination of the Soviet political system with emphasis upon the institutions and groups involved in the determination and implementation of public policy.

94:165(g). East Asian Politics — 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 Taoism To Maoism — 3 hrs.
Political philosophy from Lao Tzu to Mao Tse-tung with emphasis on latter as representing a unique synthesis of cultural traditionalism, Marxism-Leninism, and ideological innovation. Prerequisite: junior standing or consent of instructor.

94:168(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, modernization, 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 agencies, 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.

Applications of statistical techniques and computer analysis techniques to problems of public management. Prerequisites: 94:010 or 94:070; 98:080; junior standing or consent of instructor.

Discussion with government officials, analysis of relations between the press and government, and experience using reference materials in law, administration, politics, and economics. Prerequisites: departmental approval; 15 hours of political science including 94:014 and 94:131.

94:181. Internship in Politics—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.

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—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 hrs.
Prerequisite: 12 hours in Political Science and departmental permission. May be repeated only with permission of the department.


Prerequisite: 94:124 or consent of instructor.

94:275. Political Science Methodology—3 hrs.
Basic methods for gathering, analyzing and presenting knowledge in the discipline. Prerequisite: 98:080 or equivalent.

94:278. Seminar in Political Science—3 hrs.
May be repeated.

94:289. Seminar in Comparative Politics—3 hrs.


94:289. Seminar in Political Thought—3 hrs.

94:292. Research and Bibliography—3 hrs.


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.

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.

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 Society 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.

96:124(g). The City 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 Iowa 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 Iowa history. Prerequisite: junior standing or consent of instructor.

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 eighteenth-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.

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 long-range 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 southern 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.

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(g). History of Women in the United States—3 hrs.
Survey of the social, cultural, and economic roles of women in the United States from founding to the present, with some comparative analysis of women's roles in other areas of the world. 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 19th-century 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 I—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). Society 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 19th and 20th centuries. Prerequisite: junior standing or consent of instructor.

96:151(g). The Ancient 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 Civilization—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.

96:154(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, fad, 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.

96:158(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 since 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; England's beginnings as a great power and her relations with the rest of Europe. Prerequisite: junior standing or consent of instructor.

96:165(g). English History since 1688—3 hrs.
English political, economic, social, and intellectual history with emphasis on the Victorians and the 20th century; the British Empire and Commonwealth. Prerequisite: junior standing or consent of instructor.

96:166(g). European Imperialism—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 Russia—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 Germany 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.

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 emergency 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.

Discovery, exploration, conquest and development of Colonial Latin America. Prerequisite: junior standing or consent of instructor.

96:177(g). History 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 Arab-Israeli conflict. Prerequisite: junior standing or consent of instructor.

96:180(g). Latin American History—3 hrs.
Modern developments 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 Asia—3 hrs.
The culture and institutions within the Indian subcontinent from antiquity through the Hindu and Islamic periods. Prerequisite: junior standing or consent of instructor.
96:182(g). Modern South Asia — 3 hrs.
The influence of the West upon the cultures and institutions within the Indian sub-continent; response to changing conditions in the Anglo-Indian Empire; rise of movements leading to the establishment of India and Pakistan. 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.

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

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

96:193(g). Historians and Philosophy of History — 2 hrs.
A study of the methodology and philosophy of history, illustrated by the history of historical writing. Prerequisite: Junior standing.


Combines the lecture and readings-seminar approach in studying concepts and policies involved in the nation's diplomacy since the late 19th century.

96:280. Seminar in History — 1-3 hrs.
Offered in specially designed areas as indicated in Schedule of Classes.

May be repeated. Prerequisite: Approval of department head.

Seminar on major schools of interpretation of the American past, and a specific examination of the historiographical development of selected topics in American history.

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 modern European history.

Investigation into the problems confronting the historian and an analysis of the methods and techniques employed by the historian.


97 Geography

97:010. Human Geography — 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. Physical Geography — 3-4 hrs.
Explanation of the patterns of solar energy receipt, atmospheric pressure, winds, and precipitation around the Earth. Emphasis is on how solar energy, water, and crustal movements interact to determine the characteristics of natural environments on Earth. Prerequisite: must have completed Sphere I of the General Education Program.

The map as a communication tool, from perspectives of map maker and map user. Representation of same data in different ways.

97:060. Introduction to Cartography — 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 Cartography — 3 hrs.
Application of cartographic principles and techniques for 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 Photogrammetry — 3 hrs.
Basic principles of photogrammetry, aerial photo interpretation; emphasis on interpretation of physical and cultural phenomena on earth's surface. Analysis of imagery obtained through aircraft or satellite-borne cameras. Prerequisite: junior standing.

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: 97:187 or consent of instructor.

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(g). Climatology — 3 hrs.
Fundamentals of physical and dynamic climatology. Application of fundamentals to classification and mapping of the global distribution of climatic types, and reconstruction of past climates. Lecture, 2 periods; lab, 2 periods. Prerequisite: junior standing or consent of instructor.

97:112(g). Landform Analysis — 3 hrs.
Analysis of processes by which geomorphic agents shape the landscape and examination of resulting landforms. Lecture, 2 periods; lab and field trips, 2 periods. Prerequisite: junior standing or consent of instructor.

97:115(g). Soils — 3 hrs.
Properties of soils, processes of their development, and environmental factors controlling their formation. Classification, distribution, use, and erosion of soils. Lecture, 2 periods; lab and field trips, 2 periods. Prerequisite: junior standing or consent of instructor.

97:120. Economic Geography — 3 hrs.
Analysis of the location and spatial structure of economic activities in major world regions. May provide credit in Economics. Prerequisite: either 97:010 or 97:025 or 97:031 or consent of instructor.

97:130(g). Cultural Geography — 3 hrs.
A systematic study of cultural geography, with emphasis on the cultural elements of the landscape, their processes, area association and differentiation. Prerequisites: either 97:010 or 97:025 or 97:031 or consent of instructor; and junior standing.

A study of urban systems, forms, and structures including land use patterns, urbanization processes, and contemporary urban problems. Prerequisite: 97:010 or 97:025 or consent of instructor.

An introduction to metropolitan and urban planning and basic analytic models used in urban and regional planning. Planning as a political as well as technical activity is emphasized. Prerequisites: 97:132; a statistics course; junior standing 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(g). Historical Geography of a Selected Region — 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. Region(s) to be announced in Schedule of Classes. Prerequisites: 97:010 or 97:025 or 97:031 or consent of instructor; junior standing.
97:146(g). Advanced Quantitative Spatial Analysis—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; junior standing or consent of instructor.

97:150(g). Regional Geography—3 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 Geography—2-3 hrs.
Off-campus experience with preparatory and follow-up classroom study. See current Schedule of Classes for specific area to be studied, credit hours, and prerequisites. May be repeated in different geographical areas for a maximum of 6 hours.

97:162(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: 97:010 and junior standing, or consent of instructor.

97:170(g). Political Geography—3 hrs.
Prerequisites: 97:010 or 97:025 or 97:031 or consent of instructor; junior standing.

97:177. 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.

97:180. Senior Seminar in Geography—3 hrs.
Specific issues, problem, 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.

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; junior standing.

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

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; junior standing.

97:203. Field Methods—3 hrs.
A survey of geographical field procedures and problems, including measurement techniques, observations, and mapping based on field trips. Lab., 2 three-hour sessions. Prerequisite: departmental approval.

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.

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.

Prerequisite: approval of the head of the department.

97:288. Research and Bibliography—2 hrs.
Introduction to methods of geographical analysis. Scholarly use of source materials and effective presentation of research findings.

97:299. Research.

98 Sociology

This course is a survey of several American minorities, including Hispanics, Blacks, Asians, and Native Americans. A multi-disciplinary study of these groups will be made with particular emphasis being placed on geographic origins, linguistic traditions and current modes of economic subsistence. An introduction to followways and mores of each group will be given as well. (Same as 45:045.)

A scientific approach to the analysis and understanding of culture, human groups and institutions, personality, self, and social control.

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.

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. Prerequisite: completion of the mathematics requirement for General Education or consent of instructor.

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.

The development of individualized behavior; a systematic analysis of socialization 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.

The development of collective behavior; a systematic analysis of deviant, non-normative 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.

The institutional aspects of family life. Prerequisite: 98:308.

An analysis of the nature, causes and consequences of urbanization in cross-cultural 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 Sociology—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.

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. Criminal Justice System — 3 hrs.
The genesis, conceptualization, and day-to-day operation of criminal justice within our society; emphasis on interrelationships between specific stages in the crime-control process and the differences between U.S. and other criminal justice systems. Prerequisites: 98:127; junior standing or consent of instructor.

98:123(g). Social Deviance and Control — 3 hrs.
Causes and consequences of socially disapproved behavior; role of social control agencies in recruitment of deviant identities; management of and reactions 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 Sociology 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 Gerontology — 3 hrs.
Personal, interpersonal, and societal factors in the human aging process; emphasis on family, community and governmental responsibility in defining and resolving problems of the aged in a modern industrial society. Prerequisites: 98:058; 98:060; junior standing or consent of instructor.

98:126(g). Corrections and Punishment — 3 hrs.
Punishment and correction in modern 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.

Types of juvenile delinquents, causes of delinquent behavior, social institutions and their effect upon delinquency, prevention, and control of delinquent behavior. A student may not receive credit for both 98:120 and 98:127. Prerequisite: 98:058 or 98:060.

98:128(g). The Sociology 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 Criminology — 3 hrs.
Criminology theory and practice is examined in a cross-cultural perspective. Prerequisites: 98:058 or 98:060; 98:080; 98:123 or 98:127; junior standing or consent of instructor.

98:130(g). Minority 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 System — 3 hrs.
A sociological analysis of women as victims, offenders, practitioners and professionals 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). Social Stratification — 3 hrs.
Origin, development, and characteristics of 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.

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.

Comparative study of population composition, growth and major trends throughout the world; includes fertility, migration, and mortality. Introduction to techniques of population analysis; theories of population change, and problems of population policies. Prerequisite: 98:058.

98:145(g). Research Experience in Sociology — 1-3 hrs.
Research participation and/or independent supervised research. May be repeated for up to 6 hours of credit. Prerequisite: 15 semester hours in sociology including 98:080 and 98:085, and consent of instructor.

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; junior standing or consent of instructor.

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). Social Data Analysis — 3 hrs.
Intermediate methods of analysis using standing computer software program packages; includes descriptive and inferential statistics with controlled relations, 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 — 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: 98:058 or 99:011; 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 consideration of biological, cultural 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: 98:058 or 99:011; junior standing or consent of instructor. (Same as 99:162.)

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 drug-induced 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: 98:058 or 99:011; junior standing or consent of instructor. (Same as 99:169.)

98:170(g). The Development of 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.

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(g). 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 Sociology/99 Anthropology

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; senior standing or consent of instructor.

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. May be repeated for up to 6 hours of credit. Prerequisite: 15 semester hours in sociology or consent of instructor.

98:184(g). Experience in Applied Sociology — 3-6 hrs.
Work experience in applied sociology. Consultation with instructor required prior to registration. Must be taken on ungraded (credit/no credit) basis. Prerequisites: 12 semester hours in sociology and consent of instructor.

98:189(g). Readings in Sociology — 1-3 hrs.
May be repeated only with approval of department. Prerequisites: 9 hours in sociology and departmental permission; junior standing or consent of instructor.

98:198. Independent Study

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.

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.

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.


99 Anthropology

Introduction to the physical and prehistoric development of humankind, including primate and human evolution, modern races, and the archaeological cultures of the world.

Introduction to a cross-cultural perspective on human behavior. Considers the nature of society and culture among diverse human groups, from hunter-gatherers 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.

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 and the impact that interactions with European and U.S. societies had on Indian lifestyles. (Same as 68:132.)

The social organization of India with particular reference to contemporary village life. Prerequisite: 68:125 or 99:011 or consent of instructor.

99:137. Native Central and South America — 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 from holistic, comparative and cross-cultural perspectives. (Same as 68:137.)

99:142(g). Archaeology 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). Archaeology 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.

Research participation and/or independent supervised research in anthropology. May be repeated for up to 6 hours of credit. Prerequisites: 15 hours in anthropology and consent of instructor.

Introduction to the physical and prehistoric development of humankind, including hominoid 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.

Introduction to the social behavior and ecology of primatologists, 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). Psychological Anthropology — 3 hrs.
Psychological dimensions of sociocultural systems considered from a cross-cultural 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 socio-cultural context. Prerequisites: 99:011; junior standing or consent of instructor.

Anthropological understanding of behavior dealing with the supernatural; superstitious beliefs, practices, and movements throughout the world. Prerequisite: 99:010 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: 98:058 or 99:011; 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, environment, economics and religion in determining relations between individuals and groups. Prerequisites: 99:011; junior standing or consent of instructor.

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.

Current problems relating to race and ethnicity in both underdeveloped and developed societies. Prerequisite: 99:011 or consent of instructor.

An analysis of the nature, causes and consequences of urbanization in cross-cultural perspective; urban structures, characterizations and processes of urban adaptation. Prerequisite: 98:058 or 99:011 or consent of instructor. (Same as 98:110(g).)
99:168(g). 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 non-western medical systems and health care systems in the U.S. Prerequisites: 98:058 or 99:011; junior standing or consent of instructor. (Same as 98:168(g).)

99:169(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 drug-induced 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: 98:058 or 99:011; junior standing or consent of instructor. (Same as 98:169(g).)

99:171(g). Methods in Archaeology — 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.

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(g).)

Major theoretical developments in anthropology, including both historical and contemporary schools and trends. Prerequisites: 99:011 and junior standing or consent of instructor.

The development and application of the qualitative descriptive and analytic techniques used in ethnographic research. Prerequisites: 98:058 or 99:011; consent of instructor.

99:180(g). Seminar in Anthropology — 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. (May be repeated for credit.) Prerequisite: junior standing; prerequisites will vary with the topic.

Work experience in applied anthropology. Requires prior consultation with instructor. Must be taken on ungraded (credit/no credit) basis. Prerequisites: 12 hours in anthropology and consent of instructor.

99:189(g). Readings in Anthropology — 1-3 hrs.
May be repeated only with permission of department. Prerequisites: 9 hours in anthropology, junior standing or consent of instructor, and departmental permission.

State Board of Regents

Officers of the Board:  
Marvin A. Pomerantz, President  
Des Moines  
R. Wayne Richey, Executive Secretary  
Des Moines

Members of the Board:  
Terms expire June 1989  
Charles Duchen, Des Moines  
Percy C. Harris, Cedar Rapids  
Bass Van Gilst, Oskaloosa

Terms expire June 1991  
John M. Greig, Estherville  
James R. Tyler, Atlantic  
Jacklyn K. Van Ekeren, Coralville

Terms expire June 1993  
John R. Fitzgibbon, Des Moines  
Marvin A. Pomerantz, Des Moines  
Mary C. Williams, Davenport

Administrative Staff

1987-88
Officers of Administration
Constantine W. Curris — B.A., University of Kentucky; M.A., 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

Sue E. Follon — 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; M.A., Western Illinois University
Vice President for Administration and Finance — 1984

J. Joe Mitchell — B.A., Hampden-Sydney College; M.S.Ed., Longwood College; Certificate of Advanced Graduate Study, Ph.D., Virginia Polytechnic Institute and State University
Vice President for Development — 1988

Patricia L. Geidelmann — B.A., University of Northern Iowa; M.A., University of Iowa; Ed.D., University of North Carolina, Greensboro
Director of Governmental Relations  
Professor of Physical Education — 1972 (1988)

Richard H. Stinchfield — B.A., Colby College; M.A., University of Maine, Orono; M.B.A., Murray State University; Ph.D., University of Idaho
Executive Assistant to the President — 1983 (1987)

*A single date following the title indicates the beginning of service at this university. If two dates are given, the first indicates the incumbent’s first appointment to a position and the second (in parentheses) the beginning of service in the present capacity.

Office of the President
Doris L. Miller — B.A., University of Northern Iowa  
Administrative Assistant — 1949 (1965)

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

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 and Academic Achievement  
Adjunct Associate Professor of Education — 1983

Marlene J. Strathe — B.S., M.S., Iowa State University; Ed.S., University of Northern Iowa; Ph.D., Iowa State University
Assistant Vice President for Academic Affairs  
Professor of Educational Psychology and Foundations — 1970 (1988)

John Deegan, Jr. — B.S., Evangel College; M.A., Ph.D., University of Michigan
Dean of the College of Social and Behavioral Sciences  
Professor of Political Science — 1986

John C. Downey — B.S., M.S., University of Utah; Ph.D., University of California, Davis
Dean of the Graduate College  
Professor of Biology — 1988 (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 Information Management — 1964 (1982)

Barbara M. Jones — B.A., University of Illinois; M.A.T., Northwestern University; M.A., University of Cincinnati; M.L.S., Columbia University; M.A., New York University
Director of Library Services and Associate Professor — 1986

Roy H. Saigo — B.A., University of California, Davis; Ph.D., Oregon State University
Dean of the College of Natural Sciences  
Professor of Biology — 1984

Thomas J. Switzer — B.A., University of Northern Iowa; Ph.D., University of Michigan
Dean of the College of Education  
Professor of Curriculum and Instruction — 1987
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 (1982)

Paul J. Uselding — B.S., Northwestern University; M.B.A., Cornell University;  
Ph.D., Northwestern University  
Dean of the School of Business  
Professor of Economics — 1987

Office of the Vice President and Provost  
Donna M. Cornils  

Academic Computing Services  
Steven Y. Moon — B.A., University of Northern Iowa; M.S., University of Iowa  
Acting Director, Academic Computing Services — 1979 (1987)

Kenneth Connelly — B.A., University of Northern Iowa  
Programmer/Analyst — 1983

Diane C. Sullivan — B.A., University of Northern Iowa  
Systems Analyst — 1980

David Wizer — B.A., Rider College; M.A., University of Maryland  
Statistical Programmer/Analyst — 1987

School of Business  
Betty L. Anderson  
Administrative Assistant and Coordinator, School of Business Internal Affairs — 1976 (1984)

Linda A. Corbin — B.A., University of Northern Iowa  
Coordinator, School of Business Services — 1981 (1984)

Karen S. Bramblett  
Coordinator, External Services Programs and Systems — 1983 (1987)

Craig K. Mitchell — B.S., Iowa State University  
Program Manager/Institute for Decision Making, External Services Division — 1988

Randall R. Pilkington — B.A., University of Northern Iowa  
Project Manager/Institute for Decision Making, External Services Division — 1987

David D. Wheelock — B.S., University of Wisconsin, Madison  
Associate Director of Small Business Development Center, External Services Division — 1985

College of Education  
Cynthia R. Cummings — B.A., University of Northern Iowa  

Julie K. Wilkinson — B.A., M.A., Drake University  

Day Care Center  
Deborah J. Birk — B.A., Northwest Missouri State University; M.A.E., University of Northern Iowa  
Coordinator of the Day Care Center — 1985

Susan D. Miller — B.S., Iowa State University  
Assistant Coordinator of the Day Care Center — 1988

School of Health, Physical Education, and Recreation  
Kurtis C. Kidd — B.S., M.A., Brigham Young University  
Assistant Athletic Trainer — 1985

Timothy H. Klaasen — B.A., Central College; M.A., University of Northern Iowa  
Assistant Intramural Sports Director — 1983 (1985)

Terry G. Noonan — B.A., Loras College; M.S., Eastern Kentucky University  
Head Athletic Trainer/Instructional — 1982 (1986)

Michelle A. Sandrey — B.S., Kent State University; M.S., Indiana State University  
Assistant Athletic Trainer — 1985

Department of Special Education  
Janet K. Doud — B.A., University of Northern Iowa  
Supervisor, Northern Iowa Instructional Laboratory

Harriet A. Healy — B.S., The College of St. Catherine; M.A.E., Ed.S., University of Northern 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  
Broadcasting Services  
Douglas L. Vernier — B.A., M.A., University of Michigan  
Director of Broadcasting Services  
Assistant Professor of Radio-Television — 1972

Laura S. Behrens — B.A., M.A.P.A., University of Iowa  
Senior Producer — 1985

Carol Y. Cooper — B.S., East Texas State University  
Producer/Announcer — 1980

Doreen J. D’Agostino — B.A., Bradley University  
Announcer — 1986

Robert K. Dorr — B.A., University of Northern Iowa  

Peter S. Hamlin — B.A., Middlebury College  
Senior Producer — 1980

David E. Hays — A.A., North Iowa Area Community College; A.A.S., Iowa Central Community College  
Public Information Coordinator — 1979 (1985)

Mary H. Hoffman-Crook — B.A., William and Mary College  
Senior Producer — 1986

Wayne N. Jarvis — B.A., University of Northern Iowa  
Senior Producer — 1973

Carl R. Jenkins — B.A., M.A., University of Northern Iowa  
Assistant Director of Broadcasting/Programming — 1962 (1976)

Thomas E. Kacmarzynski — B.A., University of Northern Iowa  
Radio Events Producer — 1985

Todd E. Moorman — B.G.S., University of Kansas  
Announcer — 1987

Jons C. Olsson — B.A., Thiel College, Greenville, Pennsylvania  
Assistant Director of Broadcasting/Development — 1978

Patricia A. Olthoff-Blank — B.A., University of Northern Iowa  
Producer/Announcer — 1984

John B. Pieper — B.A., B.S., University of Northern Iowa  
Broadcast Operations Manager — 1977 (1986)

Steve L. Schoon — Diploma, Cleveland Institute of Electronics  
Field Service Broadcast Engineer — 1986

Gregory B. Shanley — B.S., Ohio University  
Producer/Announcer — 1986

Mark A. Simmet — B.A., St. John’s University  
Announcer — 1987

Diane M. Winkey — B.A., University of Northern Iowa  
Development Associate — 1984

Department of Communication and Theatre Arts  
James L. Albert — B.A., Coe College; M.F.A., University of Iowa  
Theatre Technician — 1987
Administrative Staff

Donna S. Huseman — B.A., M.F.A., Florida State
Business Manager/Publicist — 1987

Department of Modern Languages
Hildegard Morales Gomez — Bachillerato en Biologia, Universidad de Chile;
B.A. Universidad de Chile; M.A., 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

College of Natural Sciences

Department of Biology
Ren D. Camarata
Biology Greenhouse and Preserves Manager — 1968

Continuing Education and Special Programs
James Bodensteiner — B.A., Loras College; M.A., Ed.S., University of Northern Iowa;
Ed.D., Drake University
Director of Credit Programs — 1983
Nancy Bransfield — B.A., University of Northern Iowa
Thomas W. Hamsler — 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)
Virginia L. Hash — B.S., Iowa State University; M.A., 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 — B.A., M.A., University of Northern Iowa
Director of Non-Credit Programs
Assistant Professor of Information Management — 1966 (1985)

Department of Military Science
Dian E. Blum — B.S., University of Idaho; M.S., University of Southern California
Captain — Assistant Professor of Military Science — 1985
Kirby R. Brown — B.S., Kansas State College of Pittsburg; M.S., Pittsburg State University
Captain — Assistant Professor of Military Science — 1985
David M. Merrifield — B.S., M.S., University of Southern California
Head of the Department of Military Science
Lieutenant Colonel — Professor of Military Science — 1987
Robert S. Miyagishima — B.S., New Mexico State University; M.A., Webster University
Captain — Assistant Professor of Military Science — 1987

Museum
Ronald C. Wilson — B.A., M.A., University of Kentucky
Director/Curator, Museum — 1984

Educational Media Center
Robert R. Hartman — B.S.Ed., Maryland State Teacher’s College; M.S.,
Ed.D., Indiana University
Director of the Educational Media Center Professor of Educational Media —

Robert Eller — B.A., M.A., University of Iowa
Coordinator of Audio-Visual Services
Assistant Professor of Educational Media — 1961 (1966)
Darrell G. Fremont — A.A., Hawkeye Institute of Technology; B.A., University of Northern Iowa
Media Lab Manager — 1986 (1987)
Terry D. Coro — B.A., M.S., Southern Illinois University
Coordinator of Graphic and Photographic Services
Adjunct Instructor of Education — 1973 (1983)
Sandra J. Hendrickson — B.A., M.A., University of Northern Iowa
Operations Manager, Graphic and Photographic Services
Adjunct Instructor of Education — 1984 (1987)
Nancy A. Wisnaw — B.A., M.A., University of Northern Iowa
Coordinator of Slide and Multi-Image Services
Adjunct Instructor of Education — 1974 (1978)
Joseph J. Marchesani — B.A., Fordham University; M.S., Brooklyn College;
M.Ed., Temple University
Coordinator of Television Services
Assistant Professor of Educational Media — 1972
Emrys L. Pugh — Television Electronics, DeVry 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
Richard A. Frye — B.S., M.A., Bowling Green State University
Director, Student Support Services — 1985
Jay T. Hairston — B.A., Ohio Wesleyan University; M.S., Bowling Green State University
Director, Ethnic Minorities Cultural and Educational Center — 1985
Brian A. Huot — B.A., Concordia University; M.A., Murray State University
Writing Specialist, Center for Academic Achievement — 1986
Jill M. Johnson — B.A., M.S.W., University of Iowa
Coordinator of Counseling Services, Educational Talent Search — 1985
Anne C. Johnston — B.A., Pennsylvania State University; M.A., St. Bonaventure University
Writing Specialist, Center of Academic Achievement — 1983
Judith Kahler — B.A., University of Northern Iowa
Early Childhood Program Administrator — 1987
Wayne A. King — B.A., State University of New York, Plattsburg; M.A., Ph.D.,
University of Michigan
Director, Center for Academic Achievement
Adjunct Assistant Professor of Education — 1978 (1982)
Karen McNeill — B.S., Lincoln University; M.A., University of Northern Iowa
Kathy J. Meyers — B.A., University of Northern Iowa
Career Development/Recruitment Adviser, Educational Talent Search — 1985
Inez M. Murtha — B.A., University of Northern Iowa
Director, Upward Bound — 1969 (1986)
Anthony Stevens — B.A., Washburn College; M.A., University of Northern Iowa
Director, Educational Talent Search — 1972 (1985)
Michael G. Thomas — B.A., M.A., University of Northern Iowa
Counseling Coordinator, Student Support Services — 1984

Graduate College
Ruth E. Ratliff — B.A., St. Olaf College; M.A., University of Iowa
Assistant to the Dean for Faculty and Grant Services — 1976

Office of International Studies
Richard S. Newell — B.A., M.A., University of Washington; Ph.D., University of Pennsylvania
Professor of History — 1967 (1974)
Coordinator of International Studies — 1985
University Library

Barbara F. H. Allen — B.A., Wartburg College
Library Associate, Catalog — 1984 (1986)

Coyla E. McCann — B.A., University of Northern Iowa
Library Associate, Circulation — 1964

Timothy E. Pieper — B.A., University of Northern Iowa
Library Associate, Circulation — 1975

Della K. Taylor — B.A., University of Northern Iowa
Library Associate, Acquisitions — 1956

Sandra R. Warner — B.A., Western Illinois University
Library Associate, Acquisitions — 1981

North American Review

Robley C. Wilson Jr. — B.A., Bowdoin College; M.F.A., University of Iowa
Editor, North American Review
Professor of English — 1963 (1975)

Division of Educational and Student Services

Division Administration

Sue E. Follon — B.S., Iowa Wesleyan College; M.A., University of Northern Iowa; Ed.D., Drake University
Vice President for Educational and Student Services — 1985

Thomas P. Romnin — B.S., M.A., 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

Newana 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)

Karen S. Agee — A.B., A.M., Indiana University; Ph.D., New Mexico State University
Reading/Learning Strategies Specialist — 1984

Reginald J. Green — B.A., Luther College; M.A., University of Northern Iowa
Assistant Director, Academic Advising Services — 1974 (1977)

Jean Neibauer — B.A., Mercy College of Detroit; M.A., University of Northern Iowa
Coordinator, Advising Center — 1983

*Counseling Services; Counseling, Placement, and Career Services

Norman L. Story — B.A., David Lipscomb College; M.A., Western Michigan University; Ph.D., California School of Professional Psychology
Director of Counseling, Placement, and Career Services — 1987


Joyce E. Alberts — B.A., M.A., University of Northern Iowa
Counselor — Counseling Center — 1968

Daun R. Anderson — B.A., University of Northern Iowa; M.S.W., Our Lady of the Lake University
Counselor/Handicapped Student Services Coordinator — 1987

Evelyn D. Barron — B.A., Iowa State University; M.A., University of Northern Iowa
Cooperative Education Placement Coordinator — 1976

Patricia A. Bassett — B.A., University of Northern Iowa; M.A., University of Iowa
Liberal Arts Placement Director — 1979

Sherry D. Canoe — B.A., M.A., University of Iowa
Career Information Specialist — Career Center — 1977 (1979)

JoAnn C. Cummings — B.A., M.A., University of Northern Colorado
Counselor and Coordinator: Counseling Program for Adult Students — 1963 (1972)

Martin R. Edwards — B.S., M.A., Central Michigan University; Ph.D., North Texas State University
Counselor — Counseling Center — 1973

Kenneth E. Jacobsen — B.A., Dana College; M.C., Arizona State University
Career Services Coordinator — Career Center — 1979

Allan J. Stamburg — B.S., Western Michigan University; M.A., Appalachian State University; Naval War College Certificate, Newport, R.I.
Cooperative Education Director — 1976

Margaret Koczan Washut — B.L.S., University of Northern Iowa

Donald D. Wood — B.A., M.A., University of Northern Iowa

Financial Aid

Roland Carrillo — B.B.S., St. Mary's University at San Antonio; M.A., University of Texas at San Antonio
Financial Aid Director — 1987

Judith O. Decker — B.A., M.A., University of Northern Iowa
Assistant Director — 1979 (1985)

JoAnn Anderson — B.A., Luther College

Samuel L. Barr — B.A., Simpson College
Financial Aid Specialist — 1985

Paul H. Felix — B.A., Augustana College; M.A., University of Northern Iowa
Financial Aid Counselor — 1985

Brian S. Will — B.A., M.A., University of Northern Iowa

Maucker University Union

Renee C. Romano — B.A., M.A., Southern Illinois University
Director of Maucker Union — 1988

Sandra Eyler — B.A., University of Northern Iowa
Student Organizations Coordinator — 1987

Janice M. Hanish — B.A., M.A., University of Northern Iowa
Program Director — 1977 (1985)

Pam Wilhelm — B.A., University of Northern Iowa
Scheduling and Reservations Manager — 1986

Office of the Registrar

Robert D. Leaby — B.S., Valparaiso University, Indiana; M.A., University of Iowa
Registrar — 1976 (1978)

Mary E. Engen
Associate Registrar, Scheduling — 1967 (1979)

Douglas D. Koschmeder — B.A., University of Northern Iowa
Information Analyst — 1986

Philip L. Patton — B.A., M.A., University of Northern Iowa
Associate Registrar, Systems — 1972 (1978)
Residence System

Clark K. Elmer — B.A., University of Michigan; M.A., Michigan State University
Director of Residence — 1972 (1980)
Ann R. Abele — B.A., University of Northern Iowa
Assistant Food Unit Manager — 1987
Jennifer Anderson — B.S., North Dakota State University
Assistant Food Unit Manager — 1983
Gayla C. Brashears — B.A., M.Ed., University of Houston
Manager, University Apartments — 1987
Gary C. Daters — B.A., University of Northern Iowa
Assistant Director of Residence/Facilities — 1980
Elise A. Frohn — B.A., University of Northern Iowa
Assistant Director of Residence/Housing — 1980
Kristin D. Hutchinson — B.A., University of Northern Iowa
Hall Coordinator — 1986
James W. Johnson — B.S., M.A., Western Illinois University
Hall Coordinator — 1986
Judith L. Johnson — B.A., Miami University, Oxford, Ohio; M.Ed., University of Vermont
Hall Coordinator — 1985
Tracee A. Kirkpatrick — B.A., University of Northern Iowa
Assistant Food Unit Manager — 1978 (1987)
Drake E. Martin — B.J., University of Texas, Austin; M.A., Bowling Green State University, Ohio
Programming Coordinator — 1981
Nancy Nelson McGraw — B.S., University of Wisconsin, Stout
Food Stores Manager — 1985
Ramona K. Milius — B.A., University of Northern Iowa
Associate Director of Residence/Dining — 1980 (1987)
Jane E. Moen — B.M., B.S., University of South Dakota; M.S., Iowa State University
Hall Coordinator — 1986
Crystal L. Petersen — B.S., Iowa State University
Food Unit Manager — 1987
R. Kent Ruby — B.S., Northwest Missouri State University
FOCUS Coordinator — 1987 (1988)
Mary E. Simmwell — B.A., Drake University; M.A., Bowling Green State University
Hall Coordinator — 1986
Rosanne L. Sires — B.A., University of Northern Iowa
Assistant Food Unit Manager — 1985
Patricia A. Sorcic — B.S., University of Wisconsin, LaCrosse; M.A., Western Kentucky University
Hall Coordinator — 1987
Bruce A. Tramer — B.A., University of Wisconsin, Whitewater; M.A., Adams State College, Alamosa, Colorado
Hall Coordinator — 1984

Dorothy M. Van Helten — B.S., Iowa State University
Assistant Food Unit Manager — 1982
John M. Wagner — B.A., M.A., University of Northern Iowa
Hall Coordinator — 1987
Cynthia D. Weber — B.A., University of Northern Iowa
Assistant Food Unit Manager — 1986 (1987)
Rebecca N. Woodrick — B.A., Milliscaps College, Jackson, Mississippi; M.Ed., Oregon State University, Corvallis
Hall Coordinator — 1985
Carolyn M. Young-Haas — B.A., University of Northern Iowa
Food Unit Manager — 1984 (1987)

Student Health Services

Robert L. Tujetsch — B.S.C., M.H.A., University of Iowa; M.A., University of Northern Iowa
Administrator, Student Health Services — 1976
Phyllis A. Bulle — 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
Kara Hegley — B.S., Drake University
Pharmacist — 1982
Bruce E. Forystek — B.A., St. Cloud State University; M.D., University of Minnesota
Staff Physician — 1982
Karen J. Haugland — B.A., Simpson College; R.N., Iowa Methodist School of Nursing
Health Aid Coordinator — 1986
Elaine 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
Jacqueline J. Styklius — R.N., Allen Lutheran School of Nursing, Waterloo, Iowa
Staff Nurse — 1986
Paul D. Tenney — D.O., College of Osteopathic Medicine and Surgery, Des Moines, Iowa
Staff Physician — 1971 (1976)
Jean A. Thompson — L.P.N., Rochester School of Practical Nursing; B.A., University of Northern Iowa
Health Aid Coordinator — 1982

Division of Administration and Finance

Division of Administration

John E. Conner — B.S., University of Illinois; M.A., Western Illinois University
Vice President for Administration and Finance — 1984
Eunice A. Dell — B.A., M.B.A., University of Northern Iowa
Assistant to the Vice President for Administration and Finance — 1977 (1985)

Office of the Vice President for Administration and Finance

Darby A. Drumm
Administrative Assistant — 1961 (1973)
Administrative Data Processing

L. Dale Hillard — B.S.E.E., University of Iowa; M.S., Oklahoma State University
Director, Administrative Data Processing — 1979

Carolyn K. Braley — B.A., Iowa State University; B.S., University of Iowa
Senior Programmer Analyst — 1984 (1985)

Randal P. Deutmeyer — A.A.S., Kirkwood Community College
Senior Programmer Analyst — 1985 (1987)

David C. Fanter — B.S., Augustana College
Data Base Administrator — 1978 (1985)

Roberta L. Fox — B.A., University of Northern Iowa

Maureen A. Furlong — A.A., Eastern Iowa Community College; B.S., Iowa State University

Doreen M. Hayek — B.A., University of Northern Iowa
Computer Coordinator/Liaison — 1984

Romeyn B. (Sloan) Jenkins — B.S., University of Iowa

Dennis R. Lindner — B.A., Wartburg College

Randall A. Maas — B.S., Iowa State University
Senior Systems Programmer — 1985

Monica Mundhenke — A.S., Southeastern Community College; B.A., University of Northern Iowa
Programmer Analyst III — 1984

Thomas C. Peterson — B.S., Iowa State University
Associate Director, Administrative Data Processing — 1982

Kevin Quarnstrom — B.A., M.B.A., University of Northern Iowa
Information Systems Coordinator — 1979 (1985)

Lyle A. Rasmussen — B.S., Iowa State University

Merlin D. Taylor — B.A., University of Northern Iowa
Assistant Director — Operations — 1966 (1967)

Administrative Services

Roxanne Conrad
Senior Purchasing Agent — 1968 (1986)

Richard S. Douglas — A.B., J.D., Duke University; Ed.S., Rutgers University
Graduate School of Education
Risk Manager — 1976 (1987)

Budget Administration

James A. Stampp — B.B.A., Kent State University; M.B.A., 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

Campus Planning

Leland A. Thomson — B.A., M.A., University of Northern Iowa; Ed.D., University of Denver
Director of Campus Planning — 1968 (1981)

Paul E. Meyermann — B.S., Iowa State University
Landscape Architect — 1985

Morris E. Mikkelsen — B. Architecture, B.S., M.S., Iowa State University
University Architect — 1983

C. George Pavelonis — B.S., Southern Illinois University
Coordinator of Interior Design Services — 1985

Mark W. Seely — B. Architecture, Auburn University
Architect/Planner — 1981

Controller’s Office

Gary B. Shontz — B.B.A., University of Iowa; M.A.E., Ed.S., University of Northern Iowa
Controller and University Secretary — 1974 (1976)

Edward M. Ebert — B.A., M.A., University of Northern Iowa

Ann L. George

Bruce A. Riets — B.A., University of Northern Iowa
Assistant Controller and Chief Accountant — 1979 (1985)

Barton G. Sheffer — B.S., University of Wisconsin; M.A., University of Northern Iowa
Bursar — 1979 (1985)

Intercollegiate Athletics and UNI-Dome Administration

Robert A. Bowlsby — B.S., Moorhead State University; M.A., University of Iowa

Iradje Ahrami-Fard — B.A., M.A., University of Northern Iowa; Ph.D., University of Minnesota

Lori C. Allen — B.A., University of Northern Iowa
Assistant Football Coach — 1979

Gene Baker — B.S., M.S., Austin Peay
Baseball Coach — 1987

Meredith Bailey — B.S., Black Hills State College; M.A., Colorado State University
Instructor/Softball Coach — 1978

Janice M. Bitner — B.S., Valparaiso University; M.S., Illinois State University
Assistant Volleyball Coach — 1982

Robert P. Bolks — B.A., Iowa State University
Assistant Football Coach — 1985

Kevin Boyle — B.S., University of Iowa
Assistant Basketball Coach — 1986

Donald B. Briggs — B.A., University of Iowa; M.A., University of Northern Iowa

Julie A. Bright — B.A., University of Northern Iowa
Athletic Business Manager — 1975 (1985)

Gene Bruhn — Doctor of Chiropractic, Palmer School of Chiropractic
Assistant Softball Coach — 1982

Christopher Bucknam — B.S., Norwich University; M.A., University of Northern Iowa
Head Track Coach — 1979 (1984)

Roger Crimmins — B.A., Iowa State University
Assistant Sports Information Director — 1986

Lance Graham — B.S., University of Maine; M.A.E., North Adams State College
Head Diving Coach, Assistant Swimming Coach — 1986

Kenneth Green — A.A., Graceland College; B.S., Iowa State University; M.A., University of Northern Iowa; Ed.D., Arkansas

James G. Hall — B.S., M.S., Eastern Illinois University
Instructor/Men’s Swimming Coach — 1983

John A. Jermier — B.A., Coe College; M.A., University of Iowa
Associate Athletics Director — External — 1980

Nancy A. Justis — B.A., University of Iowa
Sports Information Director — 1974 (1979)

Robert Kincaid — B.A., Adams State College
Assistant Football Coach — 1983

Lynn King — B.A., M.A., University of Northern Iowa
Assistant Athletic Director — UNI-Dome Director — 1976 (1984)
Administrative Staff

Walter A. Klinker — B.S., University of Colorado
Assistant Football Coach — 1983

Mike Kolling — B.S., South Dakota State University; M.S., North Dakota State University
Assistant Football Coach — 1987

Kathy Kosigmark — A.A., North Iowa Area Community College; B.A., University of Northern Iowa
Women’s Tennis Coach — 1987

John J. Kriebel — B.A., University of Northern Iowa
Assistant Wrestling Coach
Administrative Assistant/Office — 1984

William T. Lawson — B.A., University of Northern Iowa
Instructor/Assistant Track Coach — 1984

Kevin Lehman — A.A., Palmer Junior College; B.A., Wartburg College; M.A., Drake University
Assistant Basketball Coach — 1986

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. Mayeda — B.S., Ball State University; M.S., Bemidji State University
Head Women’s Basketball Coach — 1984

Peter M. Mazia — B.S., University of New York; M.A., Ed.D., Columbia University
Professor/Tennis Coach — 1973

Jane McConnell — B.S., Iowa State University
Assistant Women’s Basketball Coach — 1987

Eldon J. Miller — B.S., M.A., Whittenburg College, Springfield, Ohio
Men’s Head Basketball Coach — 1986

James M. Miller — B.A., University of Northern Iowa
Assistant Wrestling Coach — 1983

Darrell Murda — B.S., Peru State College; M.S., University of Nebraska, Omaha; Ed.D., University of Northern Colorado
Head Football Coach — 1983

Terry G. Noonan — B.A., Loras College; M.S., Eastern Kentucky University
Instructor/Head Trainer — 1982 (1985)

Joyce Picht — A.A., Hawkeye Institute of Technology
Accounts Manager/Program Associate

Dennis L. Remmert — B.A., M.A., University of Northern Iowa
Instructor/Assistant Football Coach — 1964

Bill Salmon — B.A., University of Northern Iowa
Assistant Football Coach — 1984

Michelle A. Sandrey — B.S., Kent State University; M.S., Indiana State University
Instructor/Assistant Athletic Trainer — 1985

Steven F. Schmitt — B.A., M.A.E., University of Northern Iowa
Assistant Director of Athletic Development — 1985

LeaAnn Shaddox — B.A., University of Northern Iowa; M.A., University of Iowa
Instructor/Head Track and Cross-Country Coach — 1985

Rob Shaw — B.S., University of Arizona; M.A., Eastern Illinois University
Ticket Manager — 1986

Sam Skarich — B.A., M.A., Notre Dame
Part-time Assistant Basketball Coach — 1986

Terri Soldan — B.S., M.A., University of Iowa
Assistant Women’s Track Coach — 1986

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. Mixsell, Jr. — 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 Iowa
Benefits Coordinator — 1982

Anita I. Dougherty — B.A., University of Northern Iowa
Employment Manager — 1984 (1987)

Jane Juhl Juchems — B.S., Iowa State University

Alme T. Lew — B.A., Central Washington State College
Personnel Specialist — 1986 (1987)

Judy S. Thielen — B.A., University of Northern Iowa

Physical Plant

Administration

Duane C. Anderson — B.A., University of Northern Iowa
Director, Physical Plant — 1982 (1985)

James Nantz — B.A., University of Northern Iowa

Alvin Kyhl
Manager, Campus Services — 1971 (1985)

Ronnie Piper
Project Manager — 1981 (1985)

Custodial

Bill McKinley — B.A., University of Northern Iowa
Manager, Building Services — 1982 (1985)

Engineering Services

Berwyn B. Johnson — B.S., M.E., Iowa State University
Mechanical Engineer — 1974

Thomas J. Richtmeier — B.S., M.E., Iowa State University
Assistant Mechanical Engineer — 1982

David L. Walter — B.S., Iowa State University
Associate Director, Engineering Services — 1977

Grounds

Merlyn L. Heidt
Manager, Grounds Services — 1975 (1985)

Operations and Maintenance

Ronald K. Bigelow
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

Grant Christensen
Project Manager/Inspector — 1987

Steve Cutsforth — B.A., University of Northern Iowa
Buyer/Coordinator — 1974 (1985)

Utilities

Glenn E. Holmes
Manager, Power Plant — 1953 (1980)

Arthur C. Johnson — A.A.S., Milwaukee School of Engineering

Daryl E. Stoner
Assistant Director, Utilities — 1979 (1984)
Public Safety
Dean A. Shoars — B.A., Parsons College; M.A., University of Northern Iowa
Director of Public Safety — 1987

Division of Development
Division Administration
J. Joseph Mitchell — B.A., Hampden-Sydney College; M.S.Ed., Longwood College; Certificate of Advanced Graduate Study, Ph.D., Virginia Polytechnic Institute and State University
Vice President for Development — 1988

Office of Alumni Relations
Ellen (Elly) Stettler Leslie — B.A., University of Northern Iowa
Director of Alumni Relations
Executive Director/Northern Iowa Alumni Association — 1976 (1985)

Office of Development
William D. Calhoun, Jr. — B.A., Hiram College, Ohio; M.A.Ed., University of Northern Iowa
Director of Development — 1981 (1985)
L. M. (Lee) Miller — B.A., University of Northern Iowa
Director of Planned Giving — 1971 (1985)
Steven F. Schmidt — B.A., M.A., University of Northern Iowa
Assistant Athletic Director/Development — 1985
Dee Vandevert — B.S., Iowa State University
Director of Annual Giving — 1985

Division of Executive Assistant to the President
Richard H. Stinchfield — B.A., Colby College; M.A., University of Maine, Orono; M.B.A., Murray State University; Ph.D., University of Idaho
Executive Assistant to the President — 1983 (1987)

Office of Admissions
Jack L. Wielenga — B.A., M.A., Ed.S., University of Northern Iowa
Director of Admissions — 1959 (1972)
Ronald Campos — B.A., University of Iowa
Admissions Counselor — 1987
Lynne A. Heen — B.A., University of Northern Iowa
Admissions Counselor — 1983
Nancie O. Handorf — B.S., Oregon State University
Dennis L. Hendrickson — B.A., M.A., University of Northern Iowa
Associate Director of Admissions — 1971 (1974)
Noreen M. Hermansen — B.S., Oklahoma College of Liberal Arts; M.A., University of Northern Iowa
Associate Director of Admissions — High School/Campus Relations — 1968 (1978)
Christie M. Kangas — B.A., College of St. Scholastica; M.A., University of Northern Iowa
Admissions Counselor/Transfer Relations — 1986
Germana P. Nijim — B.A., College of St. Catherine; M.A., University of Rhode Island
Foreign Student Adviser — 1970 (1978)
Daniel J. Schofield — B.A., University of Northern Iowa
Admissions Counselor — 1985
Juanita P. Wright — B.A., University of Northern Iowa
Coordinator of Minority Recruitment — 1975 (1987)

Office of Affirmative Action
Winston Burt — B.A., Inter-American University; M.S., Ed.S., Ph.D., University of Michigan
Director of Affirmative Action Programs — 1988

Office of Community Services
Lowell Norland
Director of Community Services — 1987
John L. Konefes — B.S., Iowa State University; M.S., University of Massachusetts; M.S., University of Iowa
Director of the Small Business Assistance Center for the Safe and Economic Management of Solid Waste and Hazardous Substances (SBAC) — 1988

Office of Conferences and Visitor Services
Duane McDonald — B.A., University of Missouri, Kansas City; M.Ed., University of Missouri, Columbia
Director of Conferences and Visitor Services — 1986

Office of Institutional Research
*Gerald D. Bisbey — B.A., University of Northern Iowa; M.S., Iowa State University; Ph.D., University of Iowa
*Regular graduate faculty member.

Office of Public Relations
Susan Metz Chilcott — B.A., Midland Lutheran College, Nebraska; M.A., Creighton University
Director of Public Relations — 1976 (1986)
Laura L. Amick — B.A., University of Iowa
News Editor — 1982
Debra J. Blake — B.A., University of Northern Iowa
Assistant Publications Administrator — 1983
Vicki S. Grimes — B.A., University of Iowa
Assistant Director/Managing Editor — 1970 (1972)
Matthew W. Kreuter — B.A., University of Utah
Broadcast News Editor — 1987
Elizabeth Conrad LaVelle — B.A., Lawrence University, Wisconsin; M.A., Western Michigan University
Publications Designer — 1977 (1979)
Susan K. Salterberg — B.A., Central College, Pella
Assistant Publications Administrator — 1986
William G. Witt — B.A., University of Northern Iowa
Photo Journalist — 1980 (1986)

Administrative Staff
Emeritus Faculty

John F. Aldrich — B.S., University of Rhode Island; M.Ed., Boston University
Professor of Teaching — 1955 (1956)

H. Wendell Alford — B.A., John B. Stetson University; B.D., Southern Baptist Theological Seminary; B.S.L.S., North Texas State University
Associate Professor
Assistant Director, Technical Services of Library — 1959 (1986)

George G. Ball — B.S., M.A., Kent State University; Ed.D., University of Wyoming
Professor of Education and Psychology — 1958 (1976)

Jackson N. Baty — B.A., Stanford University; M.A., University of Northern Iowa; Ed.D., Drake University
Professor of Educational Psychology and Foundations — 1971 (1987)

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 (1951)

Harold E. Bernhard — B.A., Carthage College, Illinois; B.D., Chicago Lutheran Theological Seminary; Ph.D., University of Chicago
Director of the Bureau of Religious Activitv
Professor of Religion — 1949 (1974)

Mary E. Blanford — B.A., Central Normal College, Indiana; M.S., Indiana University
Assistant Professor of Business Education and Administrative Management — 1961 (1982)

David R. Bluhm — B.A., Princeton University; B.Th., Princeton Theological Seminary; M.A., Ph.D., University of Pittsburgh
Professor of Philosophy and Religion — 1954 (1977)

Emil W. Beck — B.Mus., M.Mus., Northwestern University; Ph.D., University of Iowa
Professor of Music History — 1939 (1961)

E. Jean Bontz — B.A., M.A., Ph.D., University of Iowa
Professor of Physical Education for Women
Head of the Department of Physical Education for Women — 1949 (1972)

Emily Clara Brown — A.B., Ohio State University; M.A. in Ed., Arizona State University; Ph.D., University of Arizona
Professor of History — 1966 (1976)

Len P. Buckingam — 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., M.A., 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.; Doctorate de l'Universite de Paris (Sorbonne)
Professor of French — 1961 (1983)

Tieh-Cheng Chin — B.A., National Northwestern 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)

Ellen Ann Crawford — B.A., M.A., 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. Darling — B.A., University of Northern Iowa; M.A., University of Northern Colorado
Associate Professor of Physical Education — 1958 (1985)

David D. Delafeld — B.F.A., M.A., Ph.D., Ohio State University
Professor of Art — 1951 (1963)

Gordon B. Denton — B.B.A., University of Texas; M.B.A., University of Iowa
Associate Professor of Marketing — 1965 (1980)

Margaret Dolvebella — B.A., Grinnell College; M.A., Columbia University
Associate Professor of Teaching — 1927 (1984)

Henry T. Doorman — 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; M.A., Ph.D., University of Minnesota
Professor of Educational Psychology and Foundations — 1949 (1985)

Mary K. Eklin — B.A., Drake University; B.M.A., University of Chicago
Associate Professor of Education — 1958 (1968)

Roy E. Ebben — B.A., Williams College; M.A., Wichita State University; Ph.D., University of Iowa
Professor of Speech Pathology — 1963 (1985)

Harley E. Erickson — B.S., Wisconsin State University-LaCrosse; M.S., Ph.D., University of Wisconsin
Professor of Educational Psychology and Foundations — 1963 (1987)

Manuel A. Fabelo — B.A., 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)

Louise C. T. Forest — B.A., M.A., Bryn Mawr College; Ph.D., Yale University
Professor of English — 1948 (1953)

Laura K. Gilley — B.S., M.A., University of Minnesota
Associate Professor of Teaching — 1950 (1971)

Walter J. Gohnan — B.A., St. Cloud State College, Minnesota; M.A., University of Minnesota
Associate Professor of Teaching: Science — 1951 (1977)

Harry G. Guillaume — B.S., M.A., Ed.D., Columbia University
Professor of Art — 1948 (1980)

Head of the Department of Art — 1948 (1970)

Elizabeth W. Hamilton — B.A., Tarkio College; M.A., Ph.D., University of Iowa
Professor of Mathematics — 1949 (1978)

Head of the Department of Mathematics (1963-1976)

Nelle D. Hampton — B.S., Central Missouri State University; M.A., University of Iowa; Ph.D., University of Wisconsin
Professor of Education — 1945 (1961)

Alden B. Hanson — B.A., St. Olaf College; M.Ph., University of Wisconsin
Associate Professor of English
Foreign Student Adviser — 1946 (1975)

Donald L. Hanson — B.A., M.A., University of Northern Iowa; Ed.D., University of Wyoming
Professor of Education — 1966 (1986)

William P. Happ, Jr. — B.S., Northwestern University; M.S., Ph.D., University of Iowa
Professor of Teaching — 1948 (1974)

Bernice Helff — B.A., University of Iowa; M.A., Columbia University
Associate Professor of Teaching — 1942 (1972)

Clifford H. Herrold — B.A., Central State University, Oklahoma; M.A., Colorado State University; Ed.D., Stanford University
Professor of Art — 1947 (1978)

Olive J. Holliday — B.A., University of Northern Iowa; M.A., University of Illinois
Associate Professor 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 — 1958 (1973)

Kari M. Holvik — B.A., Concordia College; M.A., Eastman School of Music, University of Rochester; Ph.D., University of Iowa
Professor of Instrumental Conducting — 1947 (1965)
Donald F. Howard — B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa
Professor of History — 1947 (1977)
Dean of the College of Business and Behavioral Sciences — (1968-1972)

Mary Ann Jackson — B.S., M.S., University of Arkansas
Assistant Professor of Teaching — 1953 (1981)

Phillip C. Jennings — B.S., M.S., Iowa State University
University Business Manager — 1942 (1977)

John J. Kamerick — B.A., St. Ambrose; M.A., Ph.D., University of Iowa
Professor of History — 1970 (1986)
President (1970-1983)

James W. Kercheval — B.A., University of Northern Iowa; M.S., Ph.D., University of Iowa
Professor of Chemistry — 1949 (1972)

Howard T. Knutson — B.A., Luther College; M.A., Ed.D., University of Wisconsin
Director of Teacher Education — 1953 (1981)
Dean of the College of Education — (1968-1976)

Dorothy Mae Koehring — B.A., Kansas State University; M.A., Columbia University; Ph.D., Yale University
Professor of Education
Regional Training Program Officer (Director) for Project Head Start — 1933 (1973)

William C. Lang — B.A., Yankton College; M.A., Ph.D., University of Iowa
Professor of History — 1949 (1978)
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)

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 (1986)

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 — 1949 (1984)
Assistant Vice President, Academic Affairs — (1971-1984)

William E. Luck — B.S., M.S., Stout State University; Ed.D., Oklahoma State University
Professor of Industrial Technology — 1962 (1979)

H. Lewis Lynch — B.S., M.Ed., University of Nebraska; D.Ed., University of Wyoming
Associate Professor of Teaching
Coordinator of Student Teaching — 1951 (1987)

Clifford G. McCollum — B.S., M.A., Ed.D., University of Missouri
Professor of Biology — 1949 (1984)
Dean, College of Natural Sciences — (1968-1984)

G. Douglas McDonald — B.S., University of Pennsylvania; M.S., University of Minnesota
Assistant Professor of Marketing — 1963 (1973)

Edna L. Mantor — B.A., University of Iowa; M.A., 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)

Charles D. Matheson — B.Mus., M.Mus., University of Michigan
Professor of Voice — 1955 (1982)

Ivone A. Maxwell — B.A., University of Northern Iowa; M.Mus., American Conservatory of Music
Associate Professor of Piano — 1940 (1978)

Josephine J. Meghern — B.A., M.A., University of Northern Iowa
Assistant Professor of Home Economics — 1967 (1987)

William K. Metcalfe — B.S., M.A., Washington University, St. Louis; Ph.D., Syracuse University
Professor of Political Science — 1961 (1985)

Caryl 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)

Robert E. Morin — B.A., M.S., Northwestern University; Ph.D., University of Wisconsin, Madison
Professor of Psychology — 1972 (1986)
Dean of the College of Social and Behavioral Sciences — (1972-1985)

Evelyn J. Mullins — B.A., Grinnell College; B.S.L.S., Columbia University
Assistant Professor
Order Librarian — 1930 (1971)

Ross A. Nielsen — B.A., Wartburg College; M.S., Ph.D., University of Iowa
Professor of Teaching
Head of Department of Teaching — 1947 (1986)

John H. Page — B. of Design, University of Michigan; M.F.A., University of Iowa
Professor of Art — 1954 (1987)
Acting Head of the Department of Art (1984-1985)

Robert L. Paulson — B.S., M.A., University of Iowa
Associate Professor of Teaching: Educational Media — 1954 (1983)

Jeannette Rogers Potter Peterson — B.A., 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)

Warren E. Pickf ord — B.A., Colorado State University; M.S., Ph.D., Iowa State University
Associate Professor of Biology — 1957 (1987)

George R. Poage — B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa
Professor of History — 1954 (1982)

Willard J. Poppy — B.Ed., Wisconsin State University, Oshkosh; M.S., Ph.D., University of Iowa
Professor of Physics — 1949 (1975)

Albert A. Potter — B.A., Nebraska State Teachers College; M.A., University of Iowa
Associate Professor of Teaching: Science — 1946 (1978)

Joseph Przychodzin — B.Ed., 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 Reiner ger — B.A., M.A., 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 — 1948 (1985)
Dean of Graduate College — (1970-1976)

Ferdinand C. Riechmann — B.A., M.A., University of Iowa
Associate Professor of Teaching: Social Studies — 1986 (1985)

Dixon L. Riggs — B.A., Marietta College; M.S., University of Michigan
Associate Professor of Biology — 1958 (1987)

James B. Roberson — B.S., Middle Tennessee State Teachers College; M.A., George Peabody College for Teachers
Associate Professor of Teaching — 1964 (1984)
Emeritus Faculty

Donald O. Rod — A.B., Luther College; A.B.L.S., University of Michigan
Professor
Director of Library Services — 1953 (1986)

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)

Arlene A. Ruthenberg — B.A., University of Northern Iowa; M.E., Wayne State University
Youth Collection Librarian and Assistant Professor — 1968 (1980)

Betts A. Roth — B.A., University of Northern Iowa; M.E., Wayne State University
Professor of History — 1932 (1967)

Pauline Louise Sauer — B.Ed., Chicago Teachers College; M.A., University of Michigan; Ph.D., Cornell University
Associate Professor of Biology
Director of the University of Northern Iowa Museum — 1949 (1981)

Leland L. Sage — B.A., Vanderbilt University; M.A., University of Illinois
Professor of History — 1932 (1967)

N. Marshall Schools — B.S., Mary Washington College; M.A., George Peabody College for Teachers
Professor of Teaching: Physical Education — 1949 (1976)

Edna Anderson Shores — B.S., M.A., Teachers College of Columbia University
Assistant Professor of Home Economics — 1947 (1973)

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 — B.A., M.S., University of Michigan
Professor of Geography — 1936 (1973)

Eloise F. Smith — B.A., University of Massachusetts; M.A., Ph.D., University of Iowa
Professor of English — 1950 (1979)

Myrtle M. Stone — B.A., Washington State University; M.B.A., University of Washington; Ed.D., New York University
Professor of Teaching — 1928 (1966)

Margarette May Struble — B.A., 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 — 1948 (1985)

Nathan M. Talbot — B.A., Western Michigan University; M.A., University of Michigan; Ph.D., University of Washington
Professor of Political Science and East Asian Studies — 1956 (1982)

Howard J. Thompson — B.A., University of Iowa; M.A., Harvard University; Ph.D., Harvard University
Professor of History — 1955 (1986)

Howard VanderBeek — B.A., University of Iowa; M.A., Ed.D., Columbia University
Professor of Teaching — 1948 (1981)

Edward V. Vollath — B.A., University of Montana; M.A., Teachers College, Columbia University; Ph.D., University of Iowa
Vice President for University Relations and Development — 1964 (1988)

James D. Welch — B.S., M.Ed., University of Missouri
Associate Professor of Teaching: Music — 1962 (1987)

Leland L. Wilson — B.S., Eastern Kentucky State University; M.S., University of Kentucky; Ph.D., George Peabody College for Teachers
Professor of Chemistry — 1955 (1979)
Head of the Department of Chemistry — (1968-1975)

Barbara Yager — B.S., M.A., The Ohio State University; Ed.D., University of Southern California
Professor of Physical Education — 1949 (1985)
1987-88 Faculty

*Fred J. Abraham — B.A., M.S., University of Wisconsin; M.A., Ph.D., University of Oregon
Professor of Economics — 1973 (1988)

Assistant Professor of Accounting — 1974

*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 Abel — B.S., M.S., Juilliard School of Music
Professor of Piano — 1978 (1984)

*Lyle K. Alberts — B.A., M.A., University of Northern Iowa
Assistant Professor of Political Science and Social Science — 1964 (1967)

*James E. Albrecht — B.A., M.A., Ed.S., University of Northern Iowa; Ed.D.,
Indiana University
Professor of Education — 1965 (1973)

*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
Professor of Religion and Humanities — 1967 (1988)

*B. Wylie Anderson — B.A., M.A., University of Northern Colorado; M.A.,
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.F.A., 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
Associate Professor of Special Education — 1980 (1986)

Ruth B. Anderson — B.A., University of California, Berkeley; M.S.W., Columbia
University School of Social Work
Professor of Social Work — 1969 (1986)

*Wayne I. Anderson — B.A., M.S., Ph.D., University of Iowa
Professor of Geology
Head of the Department of Earth Science — 1963 (1972)

LaVerne W. Andressen — B.A., M.A., University of Northern Iowa; C.P.A.
Assistant Professor of Accounting — 1980

*Jeannine L. 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 — A.A., Kirkwood Community College; B.A., University of
Northern Iowa; M.S., University of Oregon
Assistant Professor of Management — 1980 (1985)

M. Jane Asimus — B.S., University of Cincinnati; M.A., University of Northern Iowa
Instructor of Health Education — 1987

*C. Murray Austin — B.A., M.A., Ph.D., University of Pennsylvania
Professor of Geography and Regional Science — 1973 (1987)

Essmal Balu — B.A., M.A., University of Illinois, Chicago; Ph.D., University of
Wisconsin, Madison
Assistant Professor of Sociology — 1987

Thomas M. Barry — B.M.Ed., M.M., University of Colorado
Assistant Professor of Oboe and Saxophone — 1973 (1976)

*Clemens Bartolias — 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)

*Kenneth E. Baughman — B.A., Lawrence University; M.A., Ph.D., University of Chicago
Assistant Professor of English — 1972

Diane Lee 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

Carol 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 — B.A., Cornell College; M.A., University of Paris (Sorbonne)
Associate Professor of Teaching: Foreign Language — 1970 (1985)

Judy Markham Beckman — B.A., M.A., University of Northern Iowa
Assistant Professor of Teaching: Language Arts — 1969 (1975)

Mary Green Beckman — B.Mus., Oberlin Conservatory of Music; M.M.,
Cleveland Institute of Music
Professor of Harp and Theory — 1947 (1977)

*Thomas R. Berg — B.S., M.A., 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
Associate Professor of Biology — 1984 (1988)

*Gretta Berghammer — B.A., University of Wisconsin; M.F.A., 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
Associate Professor of Biology — 1978 (1986)

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; M.A.E., Ball State University;
Ed.D., Arizona State University
Associate Professor of Industrial Technology — 1975 (1988)

*Hugo L. Beykirch — B.A., M.A., Ph.D., Wayne State University
Associate Professor of Audiology — 1974 (1979)

Lynne P. Beykirch — B.A., M.A., University of Northern Iowa
Instructor of Home Economics — 1983

*Steven E. Bigler — B.A., M.F.A., University of Minnesota
Professor of Art — 1978 (1988)

Debela Birru — B.S., M.B.A., Northwest Minnesota 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

*Carl W. Bollwinkel — B.S., Concordia Teachers College; M.S., Ph.D., South ern Illinois University
Associate Professor of Teaching: Science Education — 1980

Musa R. Boots — B.A., Grinnell; M.A., University of Northern Iowa;
Assistant Professor of Speech Pathology — 1985 (1969)

Barbara E. Borg — B.A., M.A., University of Iowa; Ph.D., University of Missouri, Columbia
Assistant Professor of Anthropology — 1987

Lyle L. Bowlin — B.L.S., M.A., University of Iowa
Assistant Professor of Management — 1987
Faculty

Andres C. Bowman — B.A., San Jose State University; M.A., Northern Arizona; Ed.D., Arizona State University
Assistant Professor of Teaching
Coordinator of Student Teaching — 1987

*Mary K. Beak — B.S., University of Wisconsin; M.A., Bradley University; Ph.D., University of Illinois, Urbana-Champaign
Associate Professor of Communication Studies — 1982 (1987)

Andrew D. Brahos — B.S., Butler University; M.A.T., Duke University; M.B.A., University of Notre Dame
Instructor of Management — 1986

Lynn A. Brent — B.S., M.S., D.Ed., The Pennsylvania State University
Assistant Professor of Geology — 1982

Dorothy H. Breicheisen — B.S., Kansas State University; M.S., Ph.D., Purdue University
Instructor of Biology — 1987

Dianna L. Briggs — B.A., M.A., University of Northern Iowa

*Ronald D. Bro — B.A., M.A., University of Northern Iowa
Professor of Industrial Technology
Head of the Department of Industrial Technology — 1967 (1985)

Earle G. Brooks — B.A., University of Wisconsin, Madison
Instructor of Management
Coordinator of Management Development Center — 1983 (1986)

Kirby R. Brown — B.S., Kansas State College, Pittsburg; M.S., Pittsburgh State University
Captain-Assistant Professor of Military Science — 1985

Leander A. Brown — B.A., Fisk University; M.A., Roosevelt University; Ph.D., Iowa State University
Assistant Professor of Education — 1970

John E. Bruha — B.S., University of Wisconsin, Stevens Point; M.S., University of Wisconsin, Madison
Assistant Professor of Mathematics — 1959 (1965)

*R. Beub — B.A., Western Michigan University; M.A., Ph.D., Michigan State University
Associate Professor of German — 1982 (1984)

*David J. Buch — B.F.A., School of Art Institute, Chicago; B.A., Northwestern Illinois University; M.M., Ph.D., Northwestern University
Assistant Professor of Music History — 1985

Marsha Budlong — B.A., M.A.E., University of Northern Iowa
Instructor of Teaching: Pre-School Handicapped — 1986

Richard D. Burk — B.A., Simpson College; M.F.A., University of Illinois
Assistant Professor of Theatre — 1985

*R. Buss — B.A., M.S., Ph.D., University of Wisconsin-Madison
Associate Professor of Education — 1987

Daniel J. Cahill — B.S., M.A., Loyola University; Ph.D., University of Iowa
Professor of English — 1968 (1972)

*William P. Callahan II — B.A., University of South Florida; M.A.T., Rollins College; Ed.D., University of Florida
Associate Professor of Special Education — 1979 (1983)
Acting Associate Dean, College of Education — 1988

*Russell B. Campbell — Sc.B., Sc.M., Brown University; M.S., Ph.D., Stanford University
Associate Professor of Mathematics — 1983 (1988)

Phyllis Scott Carlin — B.S.E., Northeast Missouri State University; M.S., Ph.D., Southern Illinois University
Professor of Interpretation — 1976 (1988)

Thomas Carlisle — B.A., Thomas More College; M.F.A., Ohio University
Associate Professor of Theatre — 1977 (1983)

Marcia J. Carter — B.A., Hanover College; M.S., Re.D., Indiana University
Associate Professor of Recreation — 1987

Fred D. Carver — B.A., Aurora College; M.S., Ph.D., University of Wisconsin, Madison
Professor of Educational Administration — 1981

*Barbara Cassino — B.F.A., M.F.A., University of Michigan
Associate Professor of Art — 1978 (1982)

*C. Scott Cavellini — B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa
Associate Professor of English — 1968 (1986)

*James Chadeney — B.S., Portland State University; M.A., Ph.D., Michigan State University
Professor of Anthropology — 1968 (1985)

*James C. Chang — B.S., Mount Union College, Ohio; Ph.D., University of California, Los Angeles
Professor of Chemistry — 1964 (1974)

Hai-Ling Cheng — B.Law., National Chengchi University; M.A., Columbia University
Assistant Professor of History — 1966

Bruce A. Childster — B.Mus., Augurata College, Illinois; M.Mus., Northern Illinois University
Assistant Professor of Trumpet — 1969 (1972)

C. David Christensen — B.A., University of Northern Iowa
Assistant Professor of Teaching: Elementary Education — 1974 (1985)

*Ronald A. Chung — B.S., Holy Cross College; M.S., Ph.D., Purdue University
Professor of Home Economics
Head of the Department of Home Economics — 1986

*Roy Chung — B.A., 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; M.A., Ph.D., University of Iowa
Professor of Sociology — 1959 (1970)

*Bernard L. Clausen — B.A., Colgate University; M.S., University of Michigan
Associate Professor of Biology — 1959 (1970)

Denise E. Clayson — B.S., Ph.D., Brigham Young University
Associate Professor of Marketing — 1982 (1985)

William W. Clohesy — B.S., Loyola University of Chicago; M.A., Southern Illinois University; Ph.D., New School for Social Research at New York
Assistant Professor of Philosophy — 1987

Carol A. Colburn — B.A., Western Washington University; M.A., University of Minnesota
Assistant Professor of Theatre — 1981

*Richard Colburn — B.A., Western Washington University; M.F.A., University of Minnesota
Assistant Professor of Art — 1981 (1982)

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., Ph.D., University of Illinois
Assistant Professor of Theatre — 1984

*William B. Cooley — B.A., University of Missouri, Columbia
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
Professor of Teaching: Science Education — 1977 (1987)

*Carol A. 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., Arizona State University; Ph.D., University of Missouri, Columbia
Associate Professor of English — 1981 (1988)

*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)
*Dennis Corrigan — A.B., University of Notre Dame; M.S., Ph.D., University of Illinois
Associate Professor of Mass Communication — 1987

*Lee E. Courtmagne — B.A., Nebraska State Teachers College; M.A., Colorado State College; Ed.D., University of Northern Colorado
Professor of Special Education — 1968 (1971)

N. Kay Covington — B.S., University of Montevallo; M.S., Illinois State University; Ph.D., Texas Women's 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)

Robert 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., Ph.D., University of Kentucky
Assistant Professor of Sociology — 1985

John S. Cross — B.S., M.S., University of Illinois, Urbana
Assistant Professor of Mathematics — 1963

*David R. Crennell — A.B., Harvard University; B.D., Yale University; Th.M., Th.D., Harvard University
Professor of Religion and Philosophy — 1964 (1971)

Eleanor R. Creen — B.A., Smith College; M.S.L.S., Simmons College
Assistant Professor and Catalog Librarian — 1964 (1977)

*Denis Craig Croyer — B.A., M.A., University of Northern Iowa; Ph.D., University of Utah
Assistant Professor of Health Education — 1976

*Donald G. Cummings — B.A., Coe College; Ph.D., Tulane University
Assistant Professor of Economics — 1963

Constantine W. Curris — B.A., University of Kentucky; M.A., University of Illinois; Ed.D., University of Kentucky
Professor of Education
President of the University — 1983

Alfreda Daly — B.S., Shaw University; M.S.W., M.A., Ph.D., University of Michigan
Assistant Professor of Social Work — 1986

*Donald R. Darrow — B.A., M.A., University of Northern Iowa; Ph.D., Ohio State University
Associate Professor of Teaching: Industrial Technology — 1973 (1981)

*Chandrasekhar Das — B.A., 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

*Darrell W. Davis — B.A., M.A., University of Northern Iowa; Ph.D., Oklahoma State University
Associate Professor of Accounting — 1969 (1977)
Acting Head, Department of Information Management — 1987-1988

Thomas M. Davis — B.A., 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 — B.A., Brown University; M.A.T., Collons College; M.Ed., Ed.D., University of Florida
Professor of Education — 1971 (1985)

*John Deegan, Jr. — B.S., Evangel College; M.A., Ph.D., University of Michigan
Professor of Political Science
Dean of the College of Social and Behavioral Sciences — 1986

Bernard C. DeHoff — B.A., Franklin and Marshall College; M.A., Indiana University
Associate Professor of English — 1955 (1969)

*Walter E. DeKock — B.A., Central College; M.A., University of Northern Iowa; Ph.D., Ohio State University
Associate Professor of Science Education — 1964 (1973)

*Kenneth J. DeMault — B.S., Stanford University; M.S., University of Wyoming; Ph.D., Stanford University
Associate Professor of Geology — 1973 (1980)

*Alan W. Dennis — B.M., B.M., M.M., State University of New York, Fredonia; D.M.E., Indiana University
Assistant Professor of Orchestra and String Bass — 1984

*Ervin A. Dennis — B.A., M.A., University of Northern Colorado; Ed.D., Texas A & M University
Professor of Industrial Technology — 1973

Alicia DeVries — B.A., M.A., University of Northern Iowa
Instructor of Teaching; Secondary Resource Program — 1983 (1987)

Joan E. Diamond — B.A., 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. Doermann — B.A., M.A., University of Northern Iowa
Assistant Professor of Teaching
Coordinator, Student Teaching — 1967 (1970)

*Forrest A. Dolgner — 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. Dotath — B.A., Luther College; M.A., Western Washington University; Ph.D., Iowa State University
Associate Professor of Mathematics — 1966 (1974)

*James L. Dowd — B.S.E., M.S.E., Drake University; Ph.D., University of Iowa
Professor of Educational Administration — 1970 (1986)
Director, Iowa Principals' Academy — 1987

*Virgil E. Dowell — B.S., M.A., Kansas State Teachers College; Ph.D., University of Oklahoma
Professor of Biology — 1956 (1968)

*John C. Downey — B.S., M.S., University of Utah; Ph.D., University of California, Davis
Professor of Biology
Dean of the Graduate College — 1968 (1981)

Jacques F. Dubois — B.A., Kearney State College; M.A., University of Nebraska
Assistant Professor of French — 1966 (1971)

*Jerry M. Duce — B.A., M.A.E., University of Northern Iowa; Ph.D., Iowa State University
Professor of Teaching; School Administration — 1966 (1985)

Joan M. Duce — B.A., M.A., 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)

*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 — 1979
Head of the Department of Sociology (1979-1986)

*Lynn K. Dykstra — B.S., Creighton University; M.A., Ed.S., University of Iowa
Instructor of Teaching; Educational Media — 1984 (1986)
Faculty

*J. Philip East — B.S., Southwestern Oklahoma State University; M.S., Ph.D., University of Oregon; Assistant Professor of Computer Science Education — 1985
Charlene M. Edken — B.A., University of Wichita; M.A., University of Northern Iowa; Assistant Professor of English — 1967 (1970)
*Pete Ehlers — B.A., Florida Presbyterian College; M.F.A., University of Arkansas; Professor of Art — 1969 (1985)
*Jay A. Edelman — B.A., MacMurray College; M.A., Ph.D., Northwestern University; Associate Professor of Interpretation; Director of Theatre — 1971 (1982)
Pamela K. (Jones) Edwards — B.A., M.A., University of Northern Iowa; instructor of Public Relations — 1985
H. Stephen Edgell — B.S., M.A., University of Wisconsin, Stout; Ed.D., Texas A & M University; Assistant Professor of Industrial Technology — 1985
*John L. Eldred — B.A., Wichita State University; M.A., Ph.D., Northwestern University; Professor of History — 1963 (1970); Acting Director, Museum — 1982
*Lawrence J. Elgers — B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa; Professor of Biology — 1968 (1977)
Ivan L. Eldred — B.A., University of Northern Iowa; M.A., University of Colorado; Associate Professor of Education; Director of Safety Education — 1960 (1966)
Robert Eier — B.A., M.A., University of Iowa; Assistant Professor of Educational Media; Coordinator of Audio-Visual Services — 1961 (1966)
Jeff Ellingson — B.A., Luther College; Adjunct Instructor of Broadcasting — 1986
David K. Else — B.S., Westmar College; M.A., University of South Dakota; Ph.D., Iowa State University; Associate Professor of Teaching; Head of the Department of Teaching and Director of Malcolm Price Laboratory School — 1988
*Ralph D. Englund — B.S., Ph.D., Iowa State University; Associate Professor of Physics — 1965 (1973)
Cynthia J. Ensign — B.S., Springfield College; Ph.D., University of Wisconsin-Madison; Assistant Professor of Physical Education — 1985
Donald R. Ernest — B.A., Coe College; M.A., University of Iowa; Associate Professor of Physical Education — 1963 (1972)
*Susan E. Etscheidt — B.A., M.A., University of Northern Iowa; Ph.D., University of Minnesota; Assistant Professor of Special Education — 1977 (1984)
Russell E. Euchner — B.A., M.A., University of Northern Iowa; Assistant Professor of Education: Elementary — 1960
*Wayne R. Evenson — B.A., B.S.E.E., J.D., University of Iowa; Professor of Management and Labor Law — 1966 (1972)
Angela R. Faber — B.S., City College of the City of New York; M.S., City University of New York; Ph.D., University of Missouri, Columbia; Assistant Professor of Teaching; Coordinator of Student Teaching — 1985 (1987)
*Vincent E. Fabretti — B.A., St. Joseph’s College; M.S.W., Fordham University; D.S.W., University of Utah; M.B.A., University of Geneva, International Management Institute; Professor of Social Work; Head of the Department of Social Work — 1985 (1988)
*Mohammed F. Fahmy — B.S., Ain-Shams University, Cairo; M.S., Rensselaer Polytechnic Institute; Ph.D., Michigan State University; Associate Professor of Industrial Technology — 1983 (1987)
*Jana R. Fallin — B.M.E., M.M., Baylor University; Ph.D., University of Texas, Austin; Associate Professor of Music Education — 1987
Michael Fanelli — B.M., University of Illinois; M.A., University of Missouri; Instructor of Teaching: Music — 1987

*John T. Feckl — B.S., California State University (Pennsylvania); M.Ed., Ed.D., University of Maryland; Professor of Industrial Technology — 1981
Irv Feinestone — B.F.A., University of Wyoming; Assistant Professor of Art — 1987
William J. Ferrara — B.A., Kenyon College (Ohio); M.S.M., Indiana University; Assistant Professor of Opera/Music Theatre — 1984
Mark A. Fieser — B.A., University of Northern Iowa; M.S., Iowa State University; Assistant Professor of Computer Science — 1985
Rosa Maria F. Findlay — B.A., University of Puerto Rico; M.A., University of Northern Iowa; Instructor of Teaching; Foreign Language — 1964
*Donald G. Finegan — B.F.A., M.A., Ohio State University; Professor of Art — 1955 (1966)
*Judith M. Findlay — B.S., University of Illinois; M.A., University of Northern Iowa; Ph.D., University of Minnesota; Associate Professor of Teaching: Early Childhood Education — 1968 (1984)
D. Louis Finans — B.S., University of Wisconsin, LaCrosse; M.A., University of Northern Iowa; Professor of Teaching; Science Education — 1964 (1979)
Angela S. Floyd — B.M., Stetson University; M.M., M.M.E., Florida State University; Assistant Professor of Flute — 1986
*Stephen J. Fortgang — B.A., University of Chicago; M.A., Ph.D., Syracuse University; Associate Professor of Education — 1975 (1981)
*Adolfo Mariano Franco — B.A., Instituto de Cardenas, 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. Franklin — 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); Head of the Department of Home Economics — 1980-1985
Joseph E. Fratini — 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 A. Froyn — B.A., University of Northern Iowa; M.A., Michigan State University; Ed.D., Indiana University; Professor of Education — 1958 (1973)
*James F. Fryman — B.A., Denison University; M.A., Miami University, Ohio; Ph.D., University of North Carolina, Chapel Hill; Assistant Professor of Geography — 1978
Jeffrey L. Furner — B.M., University of Southern Mississippi; M.M., University of Illinois; Instructor of Tuba/Euphonium — 1987
Sherry K. Gable — B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa; Assistant Professor of Education — 1974 (1980)
*Jayne I. Gackenbach — B.A., New Mexico State University; M.S., Ph.D., Virginia Commonwealth University; Associate Professor of Psychology — 1990 (1984)
*Stephen J. Geas — B.A., Hamilton College; M.A., Ph.D., Indiana University; Professor of English — 1978 (1986); Editor, TESOL Quarterly
*Joyce A. Gaul — B.A., University of Northern Iowa; M.Mus., D.Mus., Northwestern University; Professor of Piano — 1957 (1969)
*Patricia L. Geiselman — B.A., University of Northern Iowa; M.A., University of Iowa; Ed.D., University of North Carolina, Greensboro; Professor of Physical Education; Director of Governmental Relations — 1972 (1988)
Marta Gilberd — B.A., California State College, Hayward; M.F.A., University of California, San Diego
Instructor of Theatre — 1987

*Albert R. Gilgen — B.A., Princeton University; M.A., Kent State University; Ph.D., Michigan State University
Professor of Psychology
Head of the Department of Psychology — 1973

*Charles C. Gillette — B.S., Iowa State University; M.A., University of Northern Iowa; Ph.D., Oklahoma State University
Associate Professor of Economics — 1966 (1972)

*Andrew R. Gilpin — B.S., M.A., Ph.D., Michigan State University
Professor of Psychology — 1974 (1986)

*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: Pre-School Handicapped — 1981 (1986)

*George David Glenn — A.B., Shimer College; M.A., Northern Illinois University; Ph.D., University of Illinois
Professor of Theatre — 1966 (1984)

Karen A. Glyn — B.A., St. Joseph's College; M.B.A., University of Maine
Assistant Professor of Marketing — 1985 (1987)

Kenneth G. Gogel — B.S., M.A., Ohio State University
Professor of Art — 1950 (1974)

Cynthia R. Goldstein — B.A., University of Michigan; M.A., Michigan State University; Ph.D., Penn State University
Assistant Professor of English — 1983

*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)

Lynda L. Goulet — B.S., Denison University; M.B.A., University of Northern Iowa
Instructor of Management — 1978

*Peter G. Goulet — B.A., Denison University; M.B.A., Ph.D., Ohio State University
Professor of Management — 1974 (1987)
Acting Head, Department of Information Management — 1988

Randy E. Grabowski — B.M.E., Indiana University; M.M., University of Nevada, Reno; D. Mus., Indiana University
Instructor of Trumpet — 1986

*Denis O. 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.E., Wichita State University; M.Mus., North Texas State University
Associate Professor of Clarinet — 1967 (1982)

Lance R. Graham — B.S., University of Maine, Orono; M.E., North Adams State College
Instructor in Physical Education — 1986

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)

*Elton E. Green — B.S., M.S., Kansas State University; Ed.D., University of Northern Colorado
Professor of Physical Education — 1968 (1972)

*Kenneth N. Green — B.S., Iowa State University; M.A., 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., Ph.D., University of Northern Colorado
Assistant Professor of Physical Education — 1967 (1975)

Gary Greenberg — B.F.A., Northern Illinois University; M.F.A., Arizona State University
Assistant Professor of Art — 1984

*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

*Carlin F. Hageman — B.A., M.A., Ph.D., University of Colorado
Assistant Professor of Speech Pathology — 1982

Marcie L. Hagge — B.A., University of Northern Iowa; M.S., Iowa State University
Instructor of Teaching: Physical Education — 1986

*Leslie W. Haley — 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.B.A., Emporia State University; Ph.D., Oklahoma State University
Assistant Professor of Marketing — 1984

Frederick W. Halgedahl — B.M., Eastman School of Music; M.M., Emporia State University
Assistant Professor of Violin — 1986

*G. Jon Hall — B.A., Central State College, Oklahoma; M.A., 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)

*Gaylon L. Halverson — B.A., Luther College; M.A., University of Northern Iowa; D.B.A., Indiana University; C.P.A.
Professor of Accounting — 1963 (1972)
Head of the Department of Accounting — 1981-1988

*Albert C. Haman — B.A., University of Iowa; M.A., Michigan State University
Associate Professor of Biology — 1961 (1972)

Nancy P. Hamil — B.A., San Jose State University; M.A., California State University, Los Angeles; Ph.D., University of Illinois
Assistant Professor of Physical Education — 1987

Rowena J. Hammill — B.M., Northern Illinois University; M.M., Indiana University
Instructor of Cello — 1985

*Susan M. Hamre-Nietsupski — B.S., M.S., Ph.D., University of Wisconsin, Madison
Associate Professor of Special Education — 1980 (1985)

*James L. Handford — B.A., 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 — B.A., M.A., University of Northern Iowa
Associate Professor of Trombone — 1969 (1974)

Sharon A. Hansen — B.M., University of Nebraska, Omaha; M.M., University of Nebraska; D.M.A., University of Missouri, Kansas City
Assistant Professor of Choral Music — 1986

Thomas W. Hansemer — B.A., M.A., University of Northern Iowa; Ed.D., Michigan State University
Professor of Education

*Carole J. Hanson — B.A., Luther College; M.A., Michigan State University; Ed.D., University of Nebraska, Lincoln
Associate Professor of Recreation — 1981

*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 — B.A., M.A.E., Ed.S., University of Northern Iowa; Ph.D., Ohio State University
Associate Professor of Education: Reading — 1961 (1972)
*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 University; M.A., University of Iowa
Assistant Professor of Speech Pathology — 1965 (1969)
Edwin H. Harris — B.A., M.A., University of Northern Iowa
Associate Professor of Teaching: Art — 1982 (1984)
*Virginia Hash — B.S., Iowa State University; M.A., University of Northern Iowa; Ph.D., Iowa State University
Associate Professor of Education
Associate Dean of Continuing Education and Special Programs — 1966 (1983)
*Shirley Elson Haupt — B.A.E., School of the Art Institute of Chicago; M.F.A., University of Iowa
Professor of Art — 1966 (1980)
*Richard R. Hawes — B.S., Municipal University of Omaha; M.S., University of Nebraska, Omaha; Ph.D., University of Nebraska, Lincoln
Professor of Teaching
Coordinator of Student Teaching
Acting Director of Office of Student Field Experiences — 1969 (1987)
*D.C. Hawley — B.A.Ed., Kearney State College; M.A., Ph.D., University of Iowa
Professor of Spanish — 1966 (1970)
*R. Allen Hayes — B.A., Johns Hopkins University; M.A., Ph.D., University of North Carolina
Associate Professor of Political Science — 1979 (1985)
*Marvin O. Heffer — B.S., M.E., University of Nebraska; Ed.D., University of Northern Colorado
Professor of Education: Elementary — 1970 (1985)
*Louis R. Heilwag — B.A., M.A., New Mexico State University; Ph.D., University of Missouri; Columbia
Assistant Professor of Psychology — 1964 (1968)
Scott C. Helzer — B.A., M.A., Kearney State College; Ph.D., Texas A & M University
Assistant Professor of Industrial Technology — 1987
*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
Daniel L. Henderson — B.S., University of Idaho; M.A., University of Northern Iowa
Instructor of Industrial Technology — 1986
Glen F. Henry — B.S., M.S., Nebraska State College, Chadron
Associate Professor of Physical Education — 1966 (1974)
*Larry D. Henley — B.A., 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 (1972)
Douglas M. Hieber — A.B., Cornell College; M.S., Illinois Institute of Technology; Ph.D., University of Iowa
Associate Professor of Mathematics — 1967 (1977)
*Clifford L. Hightman — B.A., Western Washington State College; M.S.P.A., University of Washington; Ph.D., Bowling Green State University
Associate Professor of Speech Pathology — 1975 (1982)
*Leah F. Hill — B.S., M.A.L.S., 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
Head of the Department of Sociology and Anthropology — 1972 (1987)
Lowell Hoeft — B.S., University of Wisconsin, Stevens Point; M.A., University of Northern Iowa
Instructor of Teaching: Foreign Language — 1987
Randy A. Hogancamp — B.A., University of Northern Iowa; M.Mus., Northwestern University
Assistant Professor of Percussion — 1972 (1976)
Joseph F. Hofheide — B.A., Hastings College; M.B.S., University of Colorado; Ed.D., Indiana University
Associate Professor of Teaching: Mathematics — 1986
Richard Holen — B.A., St. Cloud State University; M.S., Indiana University
Assistant Professor of Theatre — 1987
Gloria Holmes — B.A., Fisk University; M.S., Ph.D., Indiana State University
Associate Professor of Early Childhood Education — 1978 (1983)
*A. John Holstad — B.S., Northern State College, South Dakota; M.Mus., D.Mus., Northwestern University
Associate Professor of Piano — 1962 (1973)
Joyce J. Hornby — B.A., Northwestern College, Minneapolis; B.A., University of Minnesota, Duluth; M.A., University of Northern Colorado; Ed.S., University of Wyoming
Assistant Professor of Teaching: Elementary Education — 1973
*Max M. Housier — B.A., Nebraska State Teachers College; M.A., Ed.D., University of Northern Colorado
Professor of Education: Reading — 1951 (1966)
*Grace Ann Howet — B.A., College of St. Catherine; M.A., University of Minnesota; Ph.D., University of Kansas
Associate Professor of English — 1969 (1977)
*Theodore R. Howe — B.S., North Dakota State College; M.A., University of Minnesota; Ph.D., University of Kansas
Professor of English — 1969 (1979)
*Genevieve E. Hubly — B.A., Rice University; M.A., M.F.A., 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
Associate Professor of Physical Education — 1973 (1987)
*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., M.A.E., University of Northern Iowa
Instructor of Teaching: Physical Education — 1984 (1986)
Ed.D., Indiana University
Professor of Educational Administration and Counseling
Head of the Department of Educational Administration and Counseling — 1987
Edward Jamesky — B.A., University of Wisconsin; M.A. in Russian, M.A. 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)
Ann E. Jensen — B.S., Iowa State University
Adjunct Instructor in Mathematics — 1984
Marvin D. Jensen — B.A., Midland Lutheran College; M.A., 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. Lathan 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.E., Western Carolina University; Ed.D., North Carolina State University
Associate Professor of Industrial Technology — 1981 (1987)
John W. Johnson — B.A., St. Olaf College; M.A., Ph.D., University of Minnesota
Professor of History
Head of the Department of History — 1988
Valdon L. Johnson — B.A., M.A., University of Northern Iowa
Assistant Professor of English — 1968 (1971)

Barbara M. Jones — B.A., University of Illinois; M.A.T., Northwestern University; M.A., University of Cincinnati; M.L.S., Columbia University; M.A., New York University
Associate Professor
Director of Library Services — 1986

Howard V. Jones — B.A., M.A., Ph.D., Harvard University
Professor of History — 1954 (1964)

Eilene B. Kalmar — B.A., M.A., Ph.D., University of New Mexico
Associate Professor of English — 1971 (1978)

Yoko I. Karjala — B.A., University of Ryukyus, Okinawa; M.S.W., University of Connecticut; Ph.D., Arizona State University
Assistant Professor of Social Work — 1986

Lawrence J. 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 W. Keefer — B.A., University of Colorado; M.S.W., University of Denver; D.S.W., University of Utah

James L. Kelly — B.S., M.S., Mankato State College; Ph.D., University of Nebraska, Lincoln
Associate Professor of Teaching: Science Education — 1969 (1984)

James R. Kenney — B.S., M.S., Southern Illinois University
Assistant Professor of Home Economics — 1984

Thomas L. Kessler — B.G.S., M.A.L.S., M.B.A., University of Iowa
Assistant Professor and Order Librarian — 1983 (1986)

Dennis W. Kettner — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Mathematics — 1975

Lawrence W. Kieffer — B.A., M.A.L.S., University of Minnesota
Associate Professor and Head of Reader Service — 1969 (1977)

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 Center for Academic Achievement — 1978 (1982)

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

Syed N.U.A. Kirmanl — B.S., M.S., Lucknow University, India; Ph.D., Aligarh Muslim University, India
Associate Professor of Mathematics — 1984

Michael L. Klassen — B.A., Tabor College; M.I.T., Mennonite Brethren Biblical Seminary; M.S., Ph.D., Kansas State University
Assistant Professor of Marketing — 1987

Aurelia L. Klink — B.A., M.A., University of Northern Idaho
Director of Non-Credit Programs
Assistant Professor of Information Management — 1966 (1985)

Jere F. Klinkowtiz — B.A., M.A., Marquette University; Ph.D., University of Wisconsin
Professor of English — 1972 (1976)

Fritz H. Konig — B.A., University of Heidelberg; Candidatus Magisterii, University of Oslo; M.A., Ph.D., University of Iowa
Professor of German
Head of the Department of Modern Languages — 1967 (1975)

Jurgen Koppesmister — Ph.D., University of Graz, Austria
Professor of German — 1968 (1976)

Elmer J. Kortemeyer — B.S., M.A., University of Wyoming
Assistant Professor of Health Education — 1965 (1968)

Jane L. Kotenko — B.S., Michigan State University; M.A., University of Montana; Ph.D., Iowa State University
Assistant Professor of Biology — 1987

Robert E. Kramer — Ph.B., M.A., University of North Dakota
Assistant Professor of Sociology — 1965 (1970)

Marilou DeWall Kratzein — B.A., Calvin College; M.A., Ohio State University; D.M.A., University of Iowa
Professor of Organ and Music History — 1982 (1983)

Peggy Kreiner — B.A., Fox Valley Technical Institute; B.A., Eastern Montana College; M.A., University of Oregon
Adjunct Instructor of Communication Studies — 1987

Gerald P. Kreitzer — B.F.A., M.M., University of South Dakota; D.M.A., University of Iowa
Assistant Professor of Choral Music Education — 1987

Randall G. Krieg — B.A., University of Wisconsin, Madison; M.A., University of Colorado, Boulder
Assistant Professor of Economics — 1987

Marien E. Kroghmann — B.S., South Dakota State University; M.A., Ph.D., University of Iowa
Associate Professor of Political Science — 1967 (1970)

Dean A. Kruckenberg — B.A., Wartburg College; M.A., 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

Roger A. Krueter — B.A., Loras College; M.A., Ed.D., Indiana University
Professor of Education: Media — 1970 (1988)

Loreta Smith Kuse — B.S., Wisconsin State University; M.A., Ph.D., University of Iowa; M.Div., Wartburg Theological Seminary
Assistant Professor of Education: Elementary — 1972

Geraldine E. LaRonde — B.S., M.A., University of Minnesota; Ph.D., Stanford University
Professor of English
University Liaison for Teacher Education — 1972 (1983)

Catherine M. Larsen — B.A., Washington State University; M.A., Seattle Pacific University
Instructor of Teaching: Music — 1983

Patricia M. Larsen — B.A., University of California, Berkeley; M.S.L.S., University of Kentucky; M.B.A., Portland State University
Associate Professor and Assistant Director, Technical Services — 1987

William J. Lavonas — B.M., Shenandoah College and Conservatory; M.M., Philadelphia College of Performing Arts
Professor of Voice — 1987

William T. Lawson — B.A., University of Northern Iowa
Instructor in Physical Education — 1984

Cherin A. Lee — B.A., M.A., University of Northern Iowa

Key Ton Lee — B.S., Union College, Nebraska; M.A., Andrews University, Michigan; Ph.D., University of Oklahoma
Professor of Education — 1967 (1978)

Min H. Lee — B.S., M.S., Seoul National University, Korea; Ph.D., State University of New York at Stony Brook
Assistant Professor of Mathematics — 1986

Robert E. Lee — B.A., M.A., University of Northern Iowa

Jay T. Lees — B.A., Gettysburg College; M.A., Ph.D., Tulane University
Assistant Professor of History — 1987

Robert T. Lemble — B.S., M.S., Mankato State College; Ed.D., University of South Dakota
Associate Professor of Education — 1974

Lucille J. Lettow — B.A., University of Northern Iowa; M.A., University of Missouri; M.A., University of Northern Iowa
Assistant Professor and Youth Collection Librarian — 1980 (1985)

William W. Lew — B.A., Central Washington State College; M.F.A., 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

Thomas L. Little — B.A., Macalester College; M.Ed., University of Mississippi; Ed.D., Memphis State University
Associate Professor of Special Education — 1973 (1978)
Faculty

Professor of Mathematics — 1968 (1976)

John C. Longnecker — B.A., M.A., University of Northern Iowa
Assistant Professor of Mathematics — 1966 (1980)

Joan K. Loso — B.A., Wartburg College; M.A.L.S., University of Iowa
Instructor and Serials Librarian — 1987

*Barbara S. Lounsberry — B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa
Associate Professor of English — 1976 (1983)

Julie C. Lowell — B.A., Ohio Wesleyan University; M.Ed., Boston University; M.A., Ph.D., University of Arizona
Assistant Professor of Anthropology — 1987

*Jonathan J. Lu — B.Ed., Taiwan Normal University; B.D., Ashbury Theological Seminary; M.A., Ohio State University; Ph.D., University of Washington
Professor of Geography — 1973 (1980)
Acting Head of the Department of Geography — 1987

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
Professor of Sociology — 1973 (1986)

Stanley P. Lyle — B.A., University of Northern Iowa; M.A.L.S., University of Iowa; M.B.A., University of Northern Iowa
Associate Professor and Reference Librarian — 1977 (1988)

Howard W. Lyon — B.A., M.S., University of Iowa
Assistant Professor of Chemistry — 1956 (1959)

Fred Y. M. Ma — B.L.L., Sun Yat-sen University, China; M.A., B.S.L.S., University of Minnesota
Associate Professor and Head of Cataloging — 1960 (1968)

*Tony N. McCadams — B.A., University of Northern Iowa; 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 Association 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
Professor of Biology and Science Education — 1966 (1986)

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
Associate Professor of Economics — 1982 (1986)

*James G. McCullagh — B.A., 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. McCussey — 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

*LeRoy A. McGrew — B.A., Knox College, Illinois; 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 — B.A., 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
Professor of Physics — 1976 (1986)

*Donna J. E. Maier — B.A., College of Wooster; M.A., Ph.D., Northwestern University
Professor of History — 1978 (1986)

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
Women's Golf Coach
Coordinator of General Education Division — 1975

Jessica A. Marshall — B.S., Grove City College; M.L.S., University of Pittsburgh
Assistant Professor and Head of Acquisitions — 1978 (1983)

*Ripley E. Marston — B.S., James Madison University; M.S., University of Tennessee, Knoxville; Ph.D., University of Iowa
Associate Professor of Physical Education — 1976 (1987)

*Elizabeth A. Martin — B.A., Wartburg College; M.A., University of Minnesota
Associate Professor of Library Science
Head of the Department of Library Science — 1962 (1972)

*James G. Martin — B.A., M.A., Indiana State College; Ph.D., Indiana University
Professor of Sociology
Vice President and Provost — 1971

Katherine F. Martin — A.B., Douglas College, Rutgers; M.S.L.S., M.A., University of North Carolina
Assistant Professor and Bibliographer — 1982 (1985)

*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
Associate Professor of Group Piano and Accompanying — 1964 (1987)

*Charles R. May — B.S., West Texas State University; M.A., Eastern New Mexico University; Ph.D., Ohio State University; Ph.D., Vanderbilt University
Professor of Curriculum and Instruction: Elementary and Early Childhood Education — 1982

*David W. May — B.G.S., University of Kansas; M.A., University of California; Ph.D., University of Wisconsin, Madison
Assistant Professor of Geography — 1985

*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

David M. Merrifield — B.S., M.S., University of Southern California
Lt. Col.-Professor of Military Science
Head of Department of Military Science — 1987

Jane C. Mertesdorf — B.S., Mankato State College; M.A., Ball State University
Assistant Professor of Recreation — 1966 (1975)

Susan L. Meyeran — B.B.A., University of Iowa; M.B.A., University of Northern Iowa; M.A., University of Iowa
Instructor of Management
Coordinator of Computer Services — 1987

*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 Jr. — B.A., West Virginia Wesleyan College; M.A., West Virginia University
Adjunct Instructor of Communication Studies — 1985

232
*Michael H. Millar — B.A., Harvard University; M.S., Ph.D., University of Chicago
Professor of Mathematics — 1962 (1975)

Kim (Klausen) Miller — B.A., Warner College; M.S., Northwest Missouri State University
Instructor of Teaching: Special Education — 1985

*Geoffrey T. Mills — B.S., M.S., Ph.D., University of Illinois
Associate Professor of Management
Assistant Dean and Coordinator of Graduate Programs — 1983 (1988)

Robert A. Mills — A.A., Community College of the Air Force; B.A., M.A., University of Northern Iowa
Instructor of Management — 1983

Robert S. Miyagishima — B.S., New Mexico State University; M.A., Webster University
Captain-Assistant Professor of Military Science — 1987

Charles E. Moore — B.A., 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)

Lynn M. H. Moore — B.S., M.S., Bemidji State University
Instructor of Teaching: Elementary Education — 1984

*Sharon Arthur Moore — B.S., B.A., M.S., Ohio State University; Ph.D., University of Georgia
Associate Professor of Curriculum and Instruction: Reading — 1982 (1985)

David L. Morgan — B.A., Swarthmore College; M.A., 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)

Leslie A. Morgan — B.M., California State University, Fullerton; M.A., University of Iowa
Assistant Professor of Voice — 1986

Farsad Moussavi — B.A., Institute of Advanced Accounting, Iran; D.A.S., Leeds Polytechnic, England; M.B.A., Roosevelt University; Ph.D., University of Arkansas
Assistant Professor of Management — 1985

*Raul Munoz — B.A., M.A., in Sociology, University of Nebraska; M.A., in Spanish Literature, Ph.D., Michigan State University
Professor of Spanish — 1963 (1986)

David Murphy — B.M., M.M., Northwestern University
Instructor of Teaching: Music — 1986

Ben F. Myers — B.Ed., University of Toledo; M.S., Eastern Michigan University
Instructor of Teaching: Physical Education — 1982

Gretnchen M. Myers — B.A., University of Iowa; M.A.L.S., Rosary College, Illinois
Assistant Professor and Reference Librarian — 1967 (1972)

Judy L. Myers — B.A., University of Iowa; M.A.L.S., University of Wisconsin
Assistant Professor and Catalog Librarian — 1967 (1975)

*Hyo C. 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
Assistant Professor of Information Management — 1984 (1987)

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

*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)

Phillip 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

Coordinator of International Studies — 1967 (1985)

Lee H. Nicholas — B.S., B.A., University of Kansas; M.B.A., University of Tulsa; C.P.A.
Assistant Professor of Accounting — 1974 (1982)

*Lynn E. Nielsen — B.A., University of Iowa; M.A., University of Northern Iowa; Ph.D., University of Iowa
Associate Professor of Teaching: Elementary Education — 1980 (1984)

*John A. Nietszki — B.A., M.S., Ph.D., University of Wisconsin, Madison
Associate Professor of Special Education — 1980 (1984)

*Basheer K. Nijim — B.A., Augustana College, Illinois; M.A., Ph.D., Indiana University
Professor of Geography — 1962 (1972)

Virgil C. Noack — B.A., M.A., University of Northern Iowa
Assistant Professor of Sociology — 1967 (1970)

*Samuel Nodarse — Doctorate in Social Sciences, Doctorate in Law, Universidad de la Habana, Cuba; Ph.D., University of Illinois, Urbana
Professor of Spanish — 1964 (1975)

Jon G. Norem — B.S., M.B.A., University of North Dakota; C.P.A.
Assistant Professor of Accounting — 1973

Kathy Oakland — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Language Arts — 1987

*Michael David Oates — A.B., Fairfield University; M.A.T., Assumption College; Ph.D., Georgetown University
Professor of French — 1967 (1975)

Susan P. O'Brien — B.A., Clarke College; M.A., University of Northern Iowa
Instructor of Teaching

Coordinator of Student Teaching — 1986

*Timothy E. O'Connor — B.A., M.A., Creighton University; Ph.D., University of Minnesota
Associate Professor of History — 1982 (1987)

*Karl Edward Owaka — Diplom, Akademie fur Welthandel, Frankfurt; A.B., M.A., Wayne State University; Ph.D., University of Michigan
Professor of German — 1964 (1979)

Hollis O'Hare — B.A., Central College; M.A., University of Iowa; C.P.A.
Instructor of Accounting — 1987

Dennis Oliver — B.A., Central College
Instructor of Teaching: Social Studies — 1986

*Dave 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)

*Augustine Osman — B.A., M.A., Ph.D., West Virginia University
Assistant Professor of Psychology — 1986

Henry H. Parker — B.A., St. Thomas College; M.A., 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. in Operations Research, M.S. in Computer Science, Michigan State University
Assistant Professor of Computer Science — 1984

Alfred M. Pelham — B.B.A., M.B.A., University of Michigan
Assistant Professor of Marketing

Director, Small Business Development Center — 1983

Richard A. Penn — B.A., University of Northern Iowa; M.S.J., Medill School of Journalism, Northwestern University
Assistant Professor of Marketing — 1979 (1987)

*Barbara E. Pershing — B.S., Western Illinois University; M.A., University of Northern Colorado; Ph.D., Iowa State University
Associate Professor of Home Economics — 1971 (1986)

*Rex W. Pershing — B.S., Western Illinois University; M.A.Ed., University of Northern Iowa; Ed.D., University of Northern Colorado
Associate Professor of Industrial Technology — 1965 (1972)

Elizabeth J. Peterson — A.B., M.S.L.S., University of Illinois; M.B.A., University of Northern Iowa
Gerald L. Peterson — B.A., A.M., M.S.L.S., University of Illinois
Associate Professor and Reference and Special Collections Librarian — 1974 (1986)

Carol L. Phillips — B.S., Ohio State University; M.A.T., Washington State University; Ed.D., University of Northern Colorado
Assistant Professor of Physical Education — 1975 (1984)

Neil Phillips — B.A., University of Northern Iowa; M.A., University of Houston; Ph.D., University of Kansas
Assistant Professor of Communication Studies — 1981

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)

Bruce L. Plakke — B.A., M.A., Western Michigan University; Ph.D., Memphis State University
Assistant Professor of Audiology — 1978

Karen E. Pollock — B.A., M.A., University of Oregon; Ph.D., Purdue University
Assistant Professor of Speech Pathology — 1986

Paul J. Porter — B.A., M.A., Ed.S., University of Northern Iowa; Ed.D., Drake University
Assistant Professor of Education — 1967 (1970)

Lola S. Potter — B.A., Yankton College; M.A., University of Iowa; Ph.D., University of Wisconsin
Professor of Teaching: Speech Pathology — 1950 (1972)

Dan Powell — B.A., M.A., Central Washington University; M.F.A., University of Illinois
Assistant Professor in Art — 1980 (1982)

Nancy Price — B.A., Cornell College; M.A., University of Northern Iowa
Professor of English — 1979

W. Dean Primrose — B.A., M.A., 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 — B.A., Grinnell College; M.F.A., University of Iowa
Associate Professor of English — 1966 (1975)

Pamela M. Radcliffe — B.S., University of West Florida; M.S., Florida State University
Instructor of Home Economics — 1987

Ernest Raikitis — B.A., Leningrad-Commercial Institute; M.A., Hunter College-CUNY; Ph.D., New School Social Research, New York
Assistant Professor of Economics — 1986

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)

H. Ralston — B.A., Parsons College; M.A., Ph.D., University of Iowa
Professor of Education: Reading — 1966 (1971)

Edward C. Rathmell — B.A., Central College, Pella; Ed.M., Western Washington University; Ph.D., University of Michigan
Professor of Mathematics — 1972 (1982)

Jack C. Reed — B.A., M.A., University of Northern Iowa; Ed.D., University of Nebraska
Associate Professor of Information Management
Teacher Educator in Office Education — 1965 (1969)

James M. Reidy III — B.S., M.S., Oklahoma State University
Instructor of Recreation — 1987

Thomas J. Riefler — B.A., University of Nebraska; M.S.Ed., Ed.D., Northern Illinois University
Assistant Professor of Education — 1987

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
Associate Professor of Communication Studies — 1983 (1988)

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)

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

Evelin 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 — B.A., Drake University; M.S., Iowa State University; Ph.D., Kansas State University
Professor of Chemistry — 1969 (1979)

Glenda Riley — B.A., Western Reserve University; M.A., Miami University of Ohio; Ph.D., Ohio State University
Professor of History — 1969 (1977)

Verna F. Ritchie — B.A., Hunter College; M.A., McGill University; M.A.L.S., University of Michigan
Professor and Art and Music Librarian — 1966 (1985)

Janet McMillian Rives — B.A., University of Arizona; M.A., Ph.D., Duke University
Professor of Economics — 1984 (1987)

Jan C. Robbins — B.A., Pennsylvania State University; M.A., University of Minnesota
Professor of English — 1976

Kenneth C. Roberts — B.S., University of Minnesota; M.A., Washington State University
Assistant Professor in Design and Human Environment of Home Economics — 1982 (1986)

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)

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., M.A., Arizona State University; Ph.D., Michigan State University
Professor of Education — 1975 (1988)

Stephen A. Rose — B.S., M.B.S., Ph.D., Ohio State University
Associate Professor of Teaching: Social Studies — 1979 (1984)

Robert L. Ross — B.A., University of Northern Iowa; M.A., Columbia University; Ph.D., Michigan State University
Professor of Political Science — 1962 (1971)

Ronald D. Ross — B.A., Marshall University, West Virginia; M.Mus., Indiana University; Ph.D., University of Cincinnati
Professor of Theory
Director of School of Music — 1975 (1982)

Robert M. Roth — B.S., Iowa State University; M.B.A., University of Minnesota
Assistant Professor of Management — 1980 (1987)

Barbara A. Rothlisberg — B.S., University of Wisconsin, Green Bay; M.S., Ph.D., University of Wisconsin, Madison
Assistant Professor of Education — 1987

Connie Rouse — B.S., Bethany Nazarene College; M.Ed., Central State University
Instructor of Teaching: Elementary Education — 1986

*Clair D. Rowe — B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa
  Professor of Marketing — 1986
  Acting Head, Department of Accounting — 1988

M. Susan Rueschhoff — B.S.Ed., University of Nebraska, Omaha; M.B.A., 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)

Thomas G. Ryan — B.S.C., M.A., University of Iowa
  Associate Professor of History — 1960 (1980)

Elizabeth Rygh — B.A., Buena Vista College; M.A., Pittsburgh State University
  Adjunct Instructor of Communication Studies — 1987

*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 — B.A., M.B.A., University of Northern Iowa; C.P.A.
  Instructor of Accounting — 1984

*Roy E. Sandstrom — B.A., Williams College; M.A., Ph.D., State University of New York, Buffalo
  Associate Professor of History — 1969 (1978)

Otis R. Schmidt — B.J., M.J., University of Texas, Austin; M.A., Sam Houston State College
  Assistant Professor of English — 1965 (1968)

*Donald W. Schmits — B.A., University of Evansville; M.S., Southern Illinois University
  Ed.D., Rutgers University
  Associate Professor of Education
  Director, Interdisciplinary Education Laboratory — 1976

Charles B. Scholz — B.S.Ed., M.A., Northern Illinois University
  Assistant Professor of Broadcasting — 1969 (1976)

*Augusta L. Scherrer — B.A., Hunter College; M.A., Ph.D., University of Wisconsin, Madison
  Professor of Mathematics — 1950 (1963)

Lynn C. Schwandt — B.A., Coe College; M.A., University of Northern Iowa; M.A., Stanford University
  Professor of Teaching: Mathematics — 1964 (1986)

*Jane K. Sherwin Schwartz — B.A., Rockford College; M.A., Middlebury College; Ph.D., University of Michigan
  Professor of French — 1962 (1972)

*Orlando A. Schwartz — B.A., M.A., California State University, Long Beach; Ph.D., University of Kansas
  Associate Professor of Biology — 1980 (1986)

*Ralph J. Schwartz — B.S., Northwestern University; M.A., Marquette University; Ph.D., Purdue University
  Associate Professor of Speech Pathology and Audiology — 1963 (1968)

*Lyle E. Schwarzenbach — B.A., M.A., University of Northern Iowa; Ed.D., University of Wyoming
  Associate Professor of Physical Education
  Administrative Assistant, Health, Physical Education and Recreation — 1969 (1976)

*Ralph S. Scott — B.A., Luther College; M.S.W., University of Wisconsin; Ph.D., University of Chicago
  Professor of Education and Psychology — 1965 (1968)

*Robert D. Seager — B.A., University of California, Santa Barbara; Ph.D., University of California, Davis
  Associate Professor of Biology — 1981 (1985)

James T. Shaw — B.A., Sonoma State University; M.S.L.S., University of North Carolina
  Instructor and Reference Librarian — 1985

Delbert A. Shepard — B.A., University of Northern Iowa; M.S., Ph.D., Iowa State University
  Assistant Professor of Marketing — 1987

*Donald E. Shepardson — B.S., Eastern Illinois University; M.A., Ph.D., University of Illinois
  Professor of History — 1970 (1979)

William J. Shepherd — B.S.Ed., M.F.A., Ohio University
  Associate Professor of Bands and Low Brass — 1976

Allan Shickman — B.F.A., Washington University, St. Louis; M.A., University of Iowa
  Assistant Professor of Art — 1970 (1977)

*Carolyn L. Shields — B.A., Ph.D., University of Texas, Austin
  Associate Professor of English — 1976 (1983)

Mae Wha Lee Shin — B.F.A., Seoul National University; M.A., M.F.A., University of Iowa
  Instructor of Art — 1987

John E. Shultz — B.S.E., M.A., Northeast Missouri State University
  Instructor of Industrial Technology — 1985

*V. Jo Siddens — B.A., M.A., University of Northern Iowa
  Associate Professor of Art — 1968 (1984)

*Ira M. Simet — A.B., Princeton University; Ph.D., University of Notre Dame
  Assistant Professor of Chemistry — 1986

*Robert J. Simpson — B.A., Houghton College; M.S., Ph.D., University of Illinois
  Associate Professor of Biology — 1965 (1968)

James C. Skaine — B.A., Sioux Falls College; M.A., University of South Dakota
  Assistant Professor of Communication Studies — 1965

*Joseph J. Smallino — B.S., Union College, New York; M.A., University of Connecticut; Ph.D., University of Florida
  Professor of Audiology
  Head of the Department of Communicative Disorders — 1984 (1988)

Sharon Smaldino — B.A., State University of New York, Albany; M.A., University of Connecticut; Ph.D., Southern Illinois University, Carbondale
  Assistant Professor of Curriculum and Instruction: Media — 1987

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; M.A.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 of Education — 1971 (1985)

*Terri A. Soldan — B.S., M.A., University of Iowa
  Instructor in Physical Education — 1986

*John W. Somervill — B.A., Rhodes College; M.A., University of Mississippi; Ph.D., University of Arkansas
  Professor of Psychology — 1975 (1979)

*Joanne K. Spanid — B.S., University of Illinois; M.S., Ph.D., University of Iowa
  Associate Professor of Home Economics — 1974 (1978)

Douglas W. Sprague — B.A., Northwestern College; M.A., University of Northern Iowa
  Instructor of Teaching: Social Studies — 1985

David Springer — B.A., M.A., University of Iowa
  Adjunct Instructor of Public Relations — 1987

Bonnie Stahlecker — B.F.A., University of South Dakota; M.F.A., University of Wisconsin
  Assistant Professor of Art — 1985

Richard G. Stahlhut — B.A. Northern Illinois University; M.A., 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)
*Jeannie Steele — B.A., University of North Carolina; M.Ed., James Madison University; Ph.D., University of Virginia
Assistant Professor of Curriculum and Instruction
Director of Reading Clinic — 1987

*Gregory P. Stavazich — B.S., M.S., University of Minnesota; Ed.D., University of Montana
Professor of Education: Elementary, Middle School — 1976 (1981)
Acting Head of the Department of Curriculum and Instruction — 1986

*Jerry D. Stockdale — B.S., M.S., Ph.D., Iowa State University
Professor of Sociology — 1973 (1980)

*Jody M. (Hines) Stone — B.S., M.A.T., University of Iowa; Ph.D., Southern Illinois University
Associate Professor of Teaching: Science Education — 1978 (1988)

*Marilyn D. Story — B.A., Ohio Wesleyan University; M.A., University of Michigan; Ph.D., Michigan State University
Professor of Family Studies, Home Economics Department 1968 (1983)

Maureen Stoss — B.A., University of Northern Iowa; M.S., Oklahoma State University
Instructor of Management — 1985 (1986)

*Marlene I. Strathe — B.S., M.S., Iowa State University; Ed.S., University of Northern Iowa; Ph.D., Iowa State University
Professor of Educational Psychology and Foundations
Assistant Vice President for Academic Affairs — 1976 (1988)

Christine Streed — B.A., University of Northern Iowa; M.A., M.F.A., 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
Associate Professor of Economics — 1970 (1987)

Elizabeth J. Strub — B.A., M.A., University of Northern Iowa
Assistant Professor of Teaching: Elementary Education — 1972 (1981)

*Richard F. Strub — B.A., University of Northern Iowa; M.A., University of Northern Colorado; Ed.D., University of South Dakota
Associate Professor of Teaching: Counseling — 1964 (1973)

Clare Struck — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Counseling — 1983

Godfrey (Garf) Stych — B.S.P.E., M.A., University of Iowa
Assistant Professor of Physical Education — 1966 (1969)

Matthew Sugarman — B.A., San Francisco State University; M.A., Humboldt State University, Arcata, CA; M.F.A., Montana State University
Assistant Professor of Art — 1987

*Alvin R. Sunseri — B.A., Southeastern Louisiana University; M.A., Ph.D., Louisiana State University
Professor of History — 1967 (1975)

Linda Lou Sunseri — B.A., M.A., University of Northern Iowa
Instructor of Sociology — 1982

Annette C. Swann — B.A., Murray State University; M.A., Columbia University; Ed.D., Indiana University
Assistant Professor of Teaching: Art — 1983 (1986)

*Harvey Sweet — B.S., Eastern Michigan University; M.S., Ph.D., University of Wisconsin
Professor of Theatre — 1974 (1985)

*Alice S. Swenson — B.A., University of Iowa; M.A., Ph.D., Oklahoma State University
Assistant Professor of English — 1978

Thomas J. Switzer — B.A., University of Northern Iowa; Ph.D., University of Michigan
Professor of Curriculum and Instruction
Dean, College of Education — 1987

*Robert D. Talbott — A.B., A.M., Ph.D., University of Illinois
Professor of Latin American History — 1967 (1974)

Denise A. Talakson — B.S., Illinois State University; M.Ed., University of Illinois, Urbana
Instructor of Teaching: Early Childhood — 1986

Joan Talley — B.A., M.A., University of Northern Iowa
Adjunct Instructor of Communication Studies — 1987

*John E. Tarr — B.S.C., University of Iowa; M.A., University of Northern Iowa; Ph.D., University of Iowa
Professor of Teaching: Mathematics — 1961 (1974)
Acting Head, Department of Teaching — 1986-1988

Marilyn J. Teig — B.A., University of Northern Iowa
Instructor of Teaching: Elementary Education — 1978

*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., Westminster College; M.A., University of Northern Iowa
Professor of Biology — 1963 (1971)

*Shivesh C. Thakur — B.A., M.A., 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

*Diane L. Thiesen — B.S., South Dakota State University; M.S.Ed., Ph.D., Southern Illinois University, Carbondale
Associate Professor of Mathematics — 1978 (1983)

Carolyn Thomas-Flowers — B.A.E., M.S., Arizona State University, Tempe
Instructor of Home Economics — 1987

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

*Dorena J. Thompson — B.A.Ed., Western Washington University; M.A., Wheaton College; Ph.D., Ohio State University
Associate Professor of Physical Education — 1973

*Marion R. Thompson — B.S., M.S., Southern Illinois University; Ed.D., Illinois State University; Ph.D., University of Wisconsin, Madison
Professor of Special Education
Head of the Department of Special Education — 1978

*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)

*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; M.A., University of Minnesota
Assistant Professor of Information Management — 1967

*Abolghassem Tolou 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; D.M.A., University of Iowa
Assistant Professor of French Horn — 1980 (1987)

*Jean Ann Trout — B.S.Ed., Wittenberg University; M.A., Ball State University; Ed.D., Indiana University
Associate Professor of Education — 1970 (1975)

Carlyn Ann Tucker — B.F.A., Tyler School of Art, Temple University Philadelphia; M.F.A., University of Washington
Assistant Professor of Art — 1987

Jay Craig Turner — B.A., Iowa State University; M.A., University of Texas
Assistant Professor of Broadcasting — 1986

*Roy D. Unruh — B.A., Bethel College; M.A., University of Minnesota; Ed.D., University of Northern Colorado
Professor of Physics and Science Education — 1967 (1987)

Paul J. Uselding — B.S., Northwestern University; M.B.A., Cornell University; Ph.D., Northwestern University
Professor of Economics
Dean of School of Business — 1987
Wanda P. Wehner — B.A., M.A., University of Northern Iowa
Assistant Professor of Chemistry — 1966 (1971)
Paul Weltzel — B.S., University of Pittsburgh; M.B.A., University of Wisconsin, Madison
Instructor of Accounting — 1987
*Joel W. Wells — B.S., Ohio University; M.A., Western Carolina University;
Ph.D., University of Connecticut
Associate Professor of Home Economics — 1981 (1988)
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
Jere E. Wheatley — B.S., Montana State University; M.S., Bemidji State University
Assistant Professor of Industrial Technology — 1987
*Michael R. White — B.S., Northern Illinois University; M.A.Ed., University of Georgia; Ph.D., The Ohio State University
Professor of Industrial Technology — 1979
Joyce Whitfield — B.A., Briar Cliff College; M.S., Emporia State University;
Ph.D., University of Iowa
Assistant Professor
Coordinator of Student Teaching — 1986
*Donald R. Whittah — B.A., M.A., Ph.D., University of Illinois, Urbana
Professor of History — 1959 (1966)
Head of the Department of History — 1969-1988
*David A. Whitten — B.A., Pennsylvania State University; M.S., Ph.D., Case Western Reserve University
Professor of Psychology — 1974 (1979)
*Paul D. Whiston — B.S., M.S., Baylor University; Ph.D., University of Oklahoma
Professor of Biology — 1972 (1981)
Melisa Rae Widmer — B.A., M.A., University of Iowa
Assistant Professor of Home Economics — 1979
Donald E. Wiedersonders — 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)
Patrick J. Wilkinson — B.A., M.A., Drake University; M.S., Indiana University
Assistant Professor and Documents and Maps Librarian — 1980 (1983)
*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
Professor of Management — 1977 (1987)
Joseph L. Wilson — B.S., Nebraska Wesleyan University; M.A., University of Iowa;
Ed.D., Virginia Polytechnic Institute and State University
Assistant Professor of Recreation — 1985
Leslie D. Wilson — B.S., Iowa State University; M.B.A., University of Northern
Iowa
Instructor of Information Management — 1985 (1986)
Neil B. Wilson — B.S., Louisiana Technical University; M.S., University of
Missouri, Columbia
Associate Professor of Marketing
Director, School of Business External Services — 1982 (1985)
*Nixon A. Wilson — B.A., Earlham College; M. Wildlife Management, University of Michigan; Ph.D., Purdue University
Professor of Biology — 1969 (1975)
*Robley C. Wilson, Jr. — B.A., Bowdoin College; M.F.A., University of Iowa
Professor of English
Editor, 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 A. Winter — B.A., Michigan State University; M.A., Ohio State University; M.I.M., American Graduate School of International Management
Instructor of Marketing
Director, Institute for Decision Making — 1984 (1987)

*Harold B. Wohl — B.A., M.A., Ph.D., University of Iowa
Professor of History — 1956 (1969)

Kay Wohlhuter — B.A., Augustana College, Sioux Falls; M.S., Montana State University, Bozeman
Instructor of Teaching; Mathematics — 1987

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; M.A., University of Michigan
Associate Professor of English — 1966 (1974)

William C. Wood II — A.B., Lenoir-Rhyne College; M.Div., Lutheran Theo. So. Seminary; M.E., Ph.D., University of Virginia
Assistant Professor of Management — 1987

*Catherine Hatcher Woledge — B.A., M.S., Ph.D., Purdue University
Associate Professor of Education; Reading
Coordinator of Reading Education — 1975 (1980)

*Robert W. Wyatt — B.A., University of Northern Iowa; Ph.D., University of Iowa
Associate Professor of Management — 1980 (1987)

*Jack B. Yates — B.A., University of Arkansas; M.A., Ph.D., The Johns Hopkins University
Associate Professor of Psychology — 1975 (1980)

Sonia Yetter-Beeldendorf — B.A., Northern Illinois University; M.A., University of Wisconsin, Madison
Assistant Professor of Russian — 1987

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, Sacramento; M.A., Ph.D., University of California, Santa Barbara
Professor of Economics — 1981 (1987)

*George K. Zucker — B.A., Queens College, New York; M.A., Ph.D., University of Iowa
Professor of Spanish — 1968 (1974)
Index

A

Absences, 54
Abstract of dissertation
   Filing of, 139, 142
Abstract of thesis, 113
Academic Achievement, Center for, 37, 216
Academic Advising, 27-28, 217
Academic Computing Services, 35, 215
Academic Ethics Policies, 58-59
Academic Load, 53, 109
   Certification, 50, 114
   Extension students, 56
Academic Program Load
   Graduates, 53, 109, 138, 141
   Undergraduates, 53
Academic Suspension, 55
Academic Warning, 55
Accident and Sickness Insurance, 28
Accommodations, living, 27
Accounting, 8
   Courses, 147
   Major(s) and/or minor(s), 61, 130
   Staff, 61
Accreditation of the university, 5
Activities, 29-31
   Music, 29, 179
   Physical Education, 29-30
   Recreation, 29-30
   Speech/Theatre, 29
Administration, Veterans, 19, 110
Administrative Management Emphasis (see also: Information Management), 115-116
Administrative Officers, 214
Administrative Staff, 214-221
Admission Policies and Procedures, 13-17, 107-109, 137-138, 140-141
   Application for, 15, 108
   Conditional (provisional) admission to graduate study, 107, 108
   Health, 15, 109
   Housing, 15, 27
   Transfer students, 13-14, 15-16, 109
   Transcripts, 15, 108
Admissions
   Candidacy for
      Doctor of Education degree, 138
      Doctor of Industrial Technology degree, 141
      Master's degree programs, 110-111
      Specialist's degree programs, 134
      Extension class work, 11, 56
   Graduate Students, 15, 107-108, 137-138, 140-141
   Initial Admission (Doctor of Education), 137-138
   Medical Technology, 40
   Nursing programs, 39-40
   Office of (director/staff), 221
   Preparation for admission, 14
   Provisional (graduate), 107, 108
   Resident and Nonresident Classification, 16-17
   Teacher Education program, 42, 101-102
   Transfer students, 13-14, 15-16, 109
   Undergraduate students, 13-14
   Adult education (see: Continuing Education and Special Programs)
   Advanced Placement Program, 58
Bachelor's degree programs
Curricula, 39-46
General Education requirements, 47-49
Bachelor of Arts degree, 39-42
Majors and minors, 42
Bachelor of Arts — Teaching Program, 42-44
Additional requirements, 50
Majors and minors, 43-44
Bachelor of Fine Arts degree, 44, 61, 91
Portfolio Admission Review Requirement, 61
Bachelor of Liberal Studies degree, 46
Bachelor of Music degree, 44-45
Bachelor of Science degree, 45
Bachelor of Technology degree, 45-46
Bands, concert and marching, 29
Batch Computing, 35
Billing (fees), 21-22
Biology, 7
Courses, 198-200, 204
Lakeside Laboratory courses, 204
Major(s) and/or minor(s), 62-64, 115
Staff, 62, 216
Biotechnology
Major and/or minor, 63
Board and Room, 21, 27
Refunds for, 27, 53-54
Board of Regents, State, 214
Books and Supplies, approximate cost and availability, 21
Broadcasting Services, 6, 34
Staff, 215
Business, School of
Dean of the School, 215
Departments, 8
Major(s) and/or minor(s), 61, 71, 82-83, 85, 84, 115-116, 130
Staff, 215
Business Administration, Master of, 130
Business Communications
Major and/or minor, 66
Business Concepts, General
Major and/or minor, 83
Business Education graduate program (see also: Information Management), 115-116
Business Teaching major (see also: Information Management), 82, 115-116

C
Calendar, University, 3
Campus, Description of, 5
Map, 251
Cancellation of Registration, 53, 54
Candidacy, Graduate
Admission to, 110-111, 134, 138, 141
Requirements for, 110-111, 134, 138, 141
Career Services, 28
Staff, 217
Center for Academic Achievement, 37
Center for Urban Education, 36
Certificate, Registration, 21, 54
Certificates, Program, 49
Certificates, Teaching, 50
College recommendation, 50, 111, 114
Endorsements, 50, 114
For approval in various graduate majors, 108, 114, 133, 135
In other states, 114
Iowa Community College, 114
Prerequisite for graduate degree, 108, 114, 133, 135
Reinstatement, 50
Renewal, 50
Residence, credit and minimum time, 50
Temporary, 50
Types, 50
Chamber Music Series, 31
Change of Degree Program, 46
Change of Registration, 53
Fee, 21
Cheating, 58-59
Chemistry, 7
Courses, 200-201
Major(s) and/or minor(s), 64-65, 116
Staff, 64
Chemistry — Marketing
Major and/or minor, 64
Chinese (see: Modern Languages)
Choruses, 29
Classification of students, 53
Clinics (see: Health Service, Interdisciplinary Educational Laboratory, Speech and Hearing)
Clothing and Textiles
Major(s) and/or minor(s), 78-80
Coaching minor/endorsement, 76
Colleges and Departments, 5-8
College-Level Examination Program (CLEP), 57
Fees, 57
College Student Personnel Services
Major(s) and/or minor(s), 128, 136
Commencement attendance, 114, 135, 139, 142
Committees
Departmental, 138, 141
Student, 30-31
Thesis, 111
Common Numbers, 145
Common Professional Sequence (see: Professional Education Requirements)
Common Regulations and Requirements, master's degree programs, 133
Commmons, The, 33
Communication and Theatre Arts, 6
Courses, 173-177
Enrollment Management Policy, 65
Major(s) and/or minor(s), 65-67, 116
Staff, 65, 215-216
Communication graduation requirement, 48, 49, 57
Communications
Business Communications major and/or minor, 66
Communications/Public Relations major and/or minor, 65
Communications/Radio-TV major and/or minor, 65-66
Communications/Radio-TV — Business major and/or minor, 66
Communications and Training Technology major and/or minor, 116
Communicative Disorders, 6
Courses, 177-178
Major(s) and/or minor(s), 67, 115, 123
Staff, 67
Community classes, 11
Fee, 21
Community Health Education
Major and/or minor, 75
Community Recreation
Major and/or minor, 77
Comparative Literature
Major and/or minor, 74
Competency Requirements, 49-50
Comprehensive examinations, 112
Computer Applications in Education
Major and/or minor, 126
Computer Information Systems
Major and/or minor, 84
Computer Science
Courses, 196-197
Major(s) and/or minor(s), 84-86, 116
Computer use, awards for, 113
Computing Services, Academic, 35
Staff, 215
Conduct, Student, 59
Conferences and Workshops, 11
Conservation Camp, Iowa Teachers, 9
Consultative service, 11
Contents, Table of, 2
Continuing Education and Special Programs, Division of, 11
Dean of, 214
Controller's Office, 219
Cooperative Education Program, 56
Courses, 145
Cooperative Nursing — Medical Technology Programs, 40-41
Correspondence courses, 11, 56, 112
Costs
Board and room, 21
Books and supplies, 21
Tuition, 21
(see also: Fees)
Counselors
Interfraternity, 31
Panhellenic, 31
Counseling
Courses, 159-160
Major(s) and/or minor(s), 117, 128, 137
Counseling Services, 28
Staff, 217
(see also: Academic Advising)
Courses
Descriptions, 146-213
Dropping and adding, 53
Guide to Course Numbers, 145-146
Levels, 145
Load, 53, 109
Numbers common to many departments, 145
Transfer adjustment of, 15-16
Credit
Applied, 173, 179
By examination, 56, 57
Community class, 11
Correspondence 11, 56, 112
Credit/No-Credit, 55-56
Evening class, 11
Extension class, 11, 56
Graduate (for undergraduates), 58
Independent study, 56-57
Loss of, 54-55
Maximum, 50, 53, 109, 138, 141
Non-thesis plan, 112, 114
Open-credit, 56
Radio and Television, 49, 113
Recency of, 112
Residence, 15-16, 49, 113, 135, 138, 141
Research, 113, 135, 139, 142
Saturday, evening, and short-term classes, 11, 112
Second baccalaureate degree, 50, 109
Student teaching, 43, 101-102
Study abroad, 8-10
Study tours, 9-10, 58
Thesis plan, 112, 114
Transfer, 13-14, 15-16
Workshops, 11, 58, 112
Credit by Examination, 56, 57
Fee, 21
Maximum for graduation, 50
Credit/No-Credit grading, 55-56
Criminology
Major and/or minor, 98, 99
Cultural opportunities, 31
Curricula
Adjustments for transfer students, 15-16
General Education, 47-49
Graduate
Doctor of Education program, 53, 137-139
Doctor of Industrial Technology program, 53, 139-143
Master of Arts program, 53, 114-125
Master of Arts in Education program, 53, 125-129
Master of Business Administration program, 53, 130
Master of Music program, 53, 130-131
Master of Philosophy program, 53, 131-132
Second Master's degree program, 114
Specialist's degree program, 53, 134
Specialist in Education degree programs, 53, 134-137
Undergraduate
Bachelor of Arts, 39-42
Bachelor of Arts — Teaching program, 42-44
Bachelor of Fine Arts, 44
Bachelor of Liberal Studies, 46
Bachelor of Music, 44-45
Bachelor of Science, 45
Bachelor of Technology, 45-46
Other programs, 40, 49
Cooperative programs, 40-41
Joint programs, 40
Pre-professional (or joint) programs, 40-41
Curriculum and Instruction, 6
Courses, 152-154, 155-157, 160
Major(s) and/or minor(s), 67-70, 116, 126-128, 135-136, 137
Staff, 67
Curriculum Coordinator
Major and/or minor, 136
Curriculum Laboratory, 35
Cytotechnology (joint program in), 41
D
Dance
Major and/or minor, 76
Dean
Continuing Education and Special Programs, 214
College of Education, 214
College of Humanities and Fine Arts, 215
College of Natural Sciences, 214
College of Social and Behavioral Sciences, 214
Graduate College, 214
School of Business, 215
Dean's list, honors, 55
Degree Audit/Advisement Report, 53
Degree requirements for
Bachelor of Arts, 39-42
Bachelor of Arts — Teaching, 42-44
Bachelor of Fine Arts, 44
Bachelor of Liberal Studies, 46
Bachelor of Music, 44-45
Bachelor of Science, 45
Bachelor of Technology, 45-46
Change in, 46
Dean of Education, 137-139
Doctor of Education, 137-139
Doctor of Industrial Technology, 139-143
Master of Arts, 110-114, 114-125
Master of Arts in Education, 110-114, 125-129
Master of Business Administration, 110-114, 130
Master of Music, 110-114, 130-131
Master of Philosophy, 110-114, 131-132
Second Baccalaureate degree, 50, 109
Second Master's degree, 114
Specialist, 134-135
Specialist in Education, 134-135
Degree Status, 107-108, 140-141
Degree student, 107
Departments, 5-8
Courses of instruction, 145-213
Department of Education, Iowa, 50, 101, 114
Design and Human Environment, Home Economics — Major and/or minor, 79
Development, Office of, 221
Staff, 221
Dietetics
Major and/or minor, 79
Dining Services, 27
Director of Governmental Relations, 214
Directors of offices/facilities, 214-221
Dietetics Major and/or minor, 79
Dining Services, 27
Director of Governmental Relations, 214
Directors of offices/facilities, 214-221
Dietetics Major and/or minor, 79
Dining Services, 27
Director of Governmental Relations, 214
Directors of offices/facilities, 214-221
Dissertation, 138-139, 142-143
Doctor of Education, 137-139
Academic Load, 138
Admission, application for, 137-138
Admission to candidacy, 138
Admission, types of, 137-138
Degree status, 137-138
Provisional degree status, 138
Application for graduation, 139
Areas of Intensive Study, 137
Credit, 138
Recency, 138
Residence, 138
Transfer, 138
Dissertation, 138-139
Examinations, 138
Comprehensive Examination, 138
Graduate Record Examination, 138
Graduate Record Examination, 138
General Regulations, 138-139
Graduation
Application for, 139
Attendance at commencement, 139
Level of courses, 138
Microfilm agreement, 139
Program requirements, 139
Scholarship requirements, 138
Time limitation, 138
Doctor of Industrial Technology, 139-143
Academic load, 141
Admission, application for, 140-141
Admission to candidacy, 141
Admission, types of, 140-141
Degree status, 140-141
Provisional degree status, 140, 141
Advisory Committees, Faculty, 141
Application for graduation, 142
Attendance at commencement, 142
Credit, 141, 142
Recency, 141
Required for graduation, 142
Residence, 141
Transfer, 141
Department committee, 141
Dissertation, 142
Examinations, 142
Comprehensive, 142
Departmental Candidacy, 142
Dissertation, 142
Graduate Record Examination, 142
General Regulations, 141-142
Graduation Requirements, 142
Level of courses, 141
Microfilm agreement, 142
Program requirements, 143
Publication, 142
Research, 142
Scholarship requirements, 141
Dormitories (see: Residence Halls)
Double major, 56
Drama
Courses/programs (see: Communication and Theatre Arts)
Extracurricular activities, 29
Dropping courses, 53
Duplication, 54

Early Childhood Education
Major(s) and/or minor(s), 67, 99, 126
Earth Science, 7
Courses, 201-202
Major(s) and/or minor(s), 70-71, 117
Staff, 70
Economics, 8
Courses, 205
Major(s) and/or minor(s), 71
Staff, 71
Education, College of, 5-6, 215
Dean of the College, 214
Departments, 5-6
Education (doctoral program), 137-139
Education of the Gifted
Major(s) and/or minor(s), 126
Education, Interdepartmental Courses, 151
Educational Administration and Counseling, 6
Courses, 156-159, 159-160
Graduate majors, 128-129, 136, 137
Staff, 71
Educational and Student Services
Division of, 217-218
Vice President for, 214
Educational Media
Courses, 156-157
Major(s) and/or minor(s), 69, 126
Educational Media Center, The, 35-36
Audio-Production, 36
Audio-Visual Services, 36
Communications Center, 36
Graphic and Photographic Services, 36
Media Laboratory, 36
Motion Picture Production, 36
Slide and Multi-Image Services, 36
Staff, 216
Television Services, 36
Educational Opportunity Grants, 22
(see also: Pell Grants)
Educational Opportunity Programs and Special Community Services, 36-37
Center for Academic Achievement, 37
Educational Talent Search Program, 37
Ethnic Minorities Cultural and Educational Center, 37
Graduate Educational Opportunity Program, 36-37
Special Support Services Program, 36
Staff, 216
UNI Center for Urban Education (UNI-CUE), 36
Upward Bound, 37
Educational Psychology and Foundations, 6
Courses, 151-152, 157-158
Graduate majors, 129, 136-137
Staff, 71
Elementary Education
Courses, 152-154
Major(s) and/or minor(s), 67-69, 126-127
Emeritus Faculty, 222-224
Employment of students, 22, 110
Endorsements, 50, 114, 125
English Language and Literature, 6
Courses, 184-186, 187-188
Major(s) and/or minor(s), 71-74, 117-118, 123, 124
Staff, 71
English/Modern Language programs, 74, 124
Enrollment and Registration, 19, 53
Environmental/Conservation Education, 96-97
Environmental Perceptions
Major and/or minor, 102-103
Environmental Planning, Emphasis in, 96
Ethics, Academic, 58-59
Ethnic Minorities Cultural and Educational Center, 37
European Studies
Major and/or minor, 78, 88
Index

Evening classes, 11, 112
Examination Services, 27
Examinations and/or Tests
  Admission, i3, 14, 15, 108, 109, 111, 134, 138, 140, 142
  Advance Placement Program, 58
  Candidacy for
    Doctor of Education degree, 138
    Doctor of Industrial Technology degree, 140, 142
    Master of Arts degree, 108, 109, 111
    Master of Arts in Education degree, 108, 109, 111
    Master of Business Administration degree, 108, 109, 111
    Master of Music degree, 108, 109, 111
    Master of Philosophy degree, 108, 109, 111
    Specialist in Education degree, 134
    Specialist degree, 134
  College-Level Examination Program (CLEP), 57
  Comprehensive, 112
  Entrance, 13, 14, 15, 108, 109, 111, 134, 138, 140, 142
  Health, or physical, 15, 109
  Transfer, 13, 14
  Writing competency, 57
Exchange Programs
  Japanese Exchange Program, 10
  National Student Exchange, 10
  Regents Universities Student Exchange, 10
Exhibits, 33-34
Expenses (see: Fees)
Extension
  Classes, 11, 56
  Community classes (adult education), 11
  Consultative services, 11
  Continuing education, 11
  Correspondence study, 11, 56, 112
  Credit, 56
  Fee, 21
  Publications, 11
Extracurricular activities, 29-31

F

Facilities and Educational Services
  Academic Advising, 27-28
  Academic Computing Services, 35
  Advanced Placement Program, 58
  Art, Gallery of, 33
  Broadcasting Services, 7, 34
  Center for Academic Achievement, 37
  Center for Urban Education (UNI-CUE), 36
  College-Level Examination Program (CLEP), 57
  Commons, 33
  Conferences and Workshops, 11
  Continuing Education and Special Programs, 11
  Curriculum Laboratory, 35
  Educational Media Center, 35-36
  Educational Opportunity Programs, 36-37
  Ethnic Minorities Cultural and Educational Center (Culture House), 37
  Exhibits, 33-34
  Foreign Student Program, 28-29
  General Studies Program, 11, 46, 103
  Individual Studies Program, 10-11, 46, 103
  Interdisciplinary Educational Laboratory, 36
  Iowa Lakeside Laboratory, 8-9
  Iowa Teachers Conservation Camp, 9
  Library, University, 33
  Malcolm Price Laboratory School, 6, 37
  Maucker Union, 33
  Museum, University, 33-34
  National Student Exchange, 10
  Public Relations, Office of, 34
  Regents Universities Exchange Program, 10
  Saturday and Evening Classes, 11, 112
  Short-term classes, 11, 112
  Speech and Hearing Clinic, 37
  Study Abroad, 9-10
  Faculty
    Emeritus, 222-224
    Instructional, 225-238
  Faculty Advisory Committee
    Doctor of Education, 138
    Doctor of Industrial Technology, 141
  Failed courses, 54, 55
  Family Life Education
    Major and/or minor, 80
  Family Services, Home Economics — Major and/or minor, 79
  Family Student Housing, 27
  Fee exemption (awards, loans, scholarships), 22-25
  Fees, 21-22
    Activity, 21
    Admission, Application for, 21
    Applied Music, 21
    Basic, 21
    Board and room, 21
    Change of Registration, 21
    College-Level Examination, 57
    Community classes, 21
    Correspondence study, 21
    Credit by examination, 21
    Deferred tuition payment, 21-22
    Diploma replacement, 21
    Dissertations, 138-139, 142-143
    Doctoral Post-Comprehensive Registration Fee, 21
    Enrollment, 21
    Extension or television class, 21
    Exemptions, 22-25
    Financial Aid Office, 22
    Housing, 21
    Identification card replacement, 21
    Iowa Lakeside Laboratory, 21
    Late registration fee, 21
    Music, applied, 21
    Non-resident, 21
    Open credit, 21
    Payment and billing, 21-22
    Refunds, 53-54
    Registration certificate replacement, 21
    Remedial courses, 21
    Restricted enrollment fee, 21
    Returned check charge, 21
    Summer Session, 21
    Television classes, 21
    Thesis binding, 113
    Transcript, 21
    Tuition, 21
      Deferred tuition payment, 21-22
      Tuition per credit hour, 21
      Visitor (audit), 57
      Workshops, 21
      Writing Competency Examination, 21
  Fees Schedule, 21
  Filing of
    Dissertation, 139, 142
    Thesis, 113, 135
    Thesis abstracts, 113, 135
  Financial Aid Office, 22-25
  Army G.I. Bill, 24
  Awards (Athletic, Merit, Science), 23-25
  College Work Study, 22
  Employment, 22
  Graduate Scholarships and Awards, 25
  Grants (Pell, SEOG), 22
  Loans (Perkins, GSL, PLUS, and SLS), 22
  Satisfactory Progress, 23
  Scholarships, 23-25
  Staff, 217
  Food Services, 27
  Foods and Nutrition, Home Economics in Business — Major(s) and/or minor(s), 80

243
Index

Foreign Language Competency Requirement, 49-50
Foreign Student Adviser, 28-29, 221
Foreign Student Program, 28-29
Foreign studies
  Major(s) and/or minor(s), 102, 104, 105
Forensics, 29
Foundation, UNI, 34-35
UNI Foundation Fund Scholarships, 25
Fraternities, honor and social, 31
French (see: Modern Languages)

G

Gallery of Art, 33
General Education Program, 47-48
  New Courses in Old Categories, 48-49
Policies, Administrative, 48
Requirements for, 47-48
General Information, 5-11
General Studies major, 11, 103
General Studies major program for Registered Nurses, 39-40
Geography, 8
  Courses, 207-209
  Major(s) and/or minor(s), 74-75, 119
  Staff, 74
Geology (see: Earth Science)
German (see: Modern Languages)
Gifted, Education of, 126
Government (see: Political Science)
Government, Student, 30
Grade Index, 54-55
Grade Points
  Requirements, 43, 49, 50, 53, 54-55, 109, 135, 138, 141
Graduate Center, Quad-Cities, 107
Graduate College
  Dean of the College, 214
  Staff, 216
Graduate Educational Opportunity Program, 36-37
Graduate Program
  Admission to candidacy, 110-111, 134, 138, 141
  Admission to study, 15, 107-108
  Assistantships, 110
  Certification and Endorsements, 114
  Credit for undergraduate students, 58
  Second master's degree, 114
Scholarships, 24-25
Study
  Committees, 111, 141
Majors for
  Doctor of Education program, 137-139
  Doctor of Industrial Technology program, 139-143
  Master of Arts program, 114-125
  Master of Arts in Education program, 125-129
  Master of Business Administration program, 130
  Master of Music program, 130-131
  Master of Philosophy program, 131-132
  Specialist program, 134
  Specialist in Education program, 134-137
Graduate Schools in the United States, Council of, 5
Graduate Student Organization, 30-31
Graduate Thesis Research Awards, 113
Graduation
  Applications for, 50, 113, 135, 139, 142
  Requirements for
    Bachelor's degrees, 49-50
    Doctoral degrees, 138-139, 142-143
    Master's degrees, 111-114
    Specialist's degrees, 135
  With honors, 55
Grants, Educational, 22
  (see also: Financial Aid Office)
Graphic and Photographic Services, 36

Graphic Communications
  Major and/or minor, 81, 82
Grievances, Academic (student), 59
Guaranteed Student Loan, 22
Guide to Course Numbers, 145-146

H

Halls, Residence, 21, 27
  Coordinators, 218
Health examinations, 15, 109
Health, Physical Education, and Recreation, School of, 6
  Activities, 29
Courses
  Health, 168-169
  Health, Physical Education, and Recreation, Interdepartmental, 172
  Physical Education, 169-171
  Recreation, 171-172
  Major(s) and/or minor(s), 75-78, 119, 121
  Staff, 215
Health Service, Student, 28
  Staff, 218
Hearing Clinic, Speech and, 37
History, 8
  Courses, 207-209
  Major(s) and/or minor(s), 78, 119
  Staff, 78
Holidays for
  Office personnel, 19
  Students, 3
Home Economics, 8
  Courses, 160-163
  Major(s) and/or minor(s), 79-80, 119
  Staff, 79
Honor organizations, 31
Honors, graduating with, 55
Hospital service, 28

Housing
  Apartments, University, 27
  Applications for, 15, 27
  Contracts, 15, 27
  Director of, 218
  Family, 27
  Fees, 21
  Married Students, 27
  Occupancy regulations, 27
  Off-campus (food service), 27
  Residence halls, 27
  Units, men's and women's, 27
Human Relations
  Courses, 151
  Required for certification, 42
Humanities
  Courses, 188
  General Education requirements, 47
  Major and/or minor, 103
Humanities and Fine Arts, College of, 6-7
  Dean of the College, 215
  Departments, 6-7

I

I.D. (identification card), 54
Student Spouse, 31
Incomplete (unfinished) work, 54
  (see also: Research Continued)
Independent study, 10-11, 56-57, 103-104, 145
  Individual instruction, 56-57, 103-104, 145
Individual Studies Program
  Individual study, 10-11, 145
  Major, 103-104
  Readings, 10-11
  Seminar, 10-11
Industrial Education Exposition Scholarship, 23
Industrial Technology, 7
  Courses, 163-166
Doctor of Industrial Technology degree program, 139-143
  Major(s) and/or minor(s), 80-82, 120, 139-143
  Staff, 80
Information Management, 8
  Courses, 150-151
  Major(s) and/or minor(s), 82-83, 115-116
  Staff, 82
Information services, 34
Institutes and Workshops, 8-10, 11, 58
Instruction, Division of, 214-217, 222-238
Instrumental music, 89-92
Insurance, Student Health and Accident, 28
Intercollegiate Athletics, 29
  Staff, 219-220
Interdisciplinary Courses and Programs
  American Studies major, 102
  Asian Studies major and minor, 102
  Environmental Perceptions minor, 102-103
  General Studies major, 103
  Humanities courses, 188
  Human Relations courses, 151
  Humanities major and minor, 103
  Individual Studies major, 103-104
  Latin American Studies major 104
  Russian/Soviet Area Studies major and minor, 105
  Women’s Studies minor, 105
  Interdisciplinary Educational Laboratory, 36
  Interest organizations, 29-31
International Affairs
  Major and/or minor, 95
  International Student Program, 9, 28-29
Interpretive Communication, Communication and Theatre Arts —
  Major and/or minor, 67
  Iowa Lakeside Laboratory, 8-9, 204
  Iowa Professional Certificate, 50
  Iowa State Department of Education, 50, 101, 114
  Iowa Teachers Conservation Camp, 9

J
Japanese Exchange Program, 10
Jazz Studies
  Major and/or minor, 90
Joint Programs, 40
Journalism
  Courses, 187-188
  Major(s) and/or minor(s), 73
Junior High School Education
  (see: Middle School/Junior High Education major)

K
KCRR (Campus radio station), 31
  Broadcasting courses, 173-177
KHKE/KUNI (FM radio station), 7, 34

L
Laboratory, Curriculum, 35
  Laboratory School, Malcolm Price, 6, 37, 101-102
  Lakeside Laboratory, Iowa, 8-9
  Courses, 204
Languages (see: Modern Languages)
  Late enrollment and registration fee, 21
Latin American Studies
  Major and/or minor, 104
Learning strategies, reading and, 27, 37
Level of courses, 109, 145
Liberal Arts curricula, 42
Liberal Arts programs (see departmental listings)
  Liberal Studies, Bachelor of, 46
  Library, The University, 33
  Library Science, 6
  Courses, 166-167
  Major(s) and/or minor(s), 83, 120
  Staff, 83
Linguistics
  Courses, 185-186
  Major(s) and/or minor(s), 72-73, 118
Living accommodations, 27
Load, academic, 50, 53, 56, 109, 114
Loan funds, 22, 110

M
Majors
  Graduate, 51, 114-143
  Second or double, 50, 109, 114
  Undergraduate programs, 39-50, 61-105
Making up of work, 54
Malcolm Price Laboratory School, 6, 37, 101-102
Management, 8
  Courses, 148-150
  Major(s) and/or minor(s), 83, 130
  Staff, 83
  Map of campus, 251
Marketing, 8
  Courses, 147-148
  Major(s) and/or minor(s), 84, 130
  Staff, 84
  Marks and Grade Points, 43, 49, 50, 53, 54-55, 109, 135, 138, 141
  Married Student Housing (see: University Apartments)
Master’s Degrees Common Regulations and Requirements, 110-114
Master’s degree programs
  Master of Arts, 114-125
  Master of Arts in Education, 125-129
  Master of Business Administration, 130
  Master of Music, 130-131
  Master of Philosophy, 131-132
Mathematics and Computer Science, 7
  Courses, 193-197
  Major(s) and/or minor(s), 84-86, 116-117, 120
  Staff, 84
Maucker Union, 33, 217
Measurement and Research, Courses in, 157
Media
  Major(s) and/or minor(s), 69, 126
  Media Center, Educational, 35-36
  Medical Service, 28
  Medical Technology, Cooperative Program in, 41
  Medicine, 39-41
Merchant Scholarship, 25
Microfilm agreement, 139, 142
Middle School/Junior High School Education
  Courses, 152-154
  Emphasis, 69
  Major(s) and/or minor(s), 127
Military Science
  Courses, 146-147
  Program, 87
  Staff, 87
Minority group education (see: Educational Opportunity Program)
  Minors, 42, 43-44
Modern Languages, 6
  Courses
    Chinese, 189
    French, 189-190
    German, 190-191
    Languages, 188-189
    Portuguese, 193
    Russian, 191-192
    Spanish, 192-193
English/Modern Language programs, 74
Major(s) and/or minor(s), 74, 87-89
  European Studies, 88
  French, 88, 118
  German, 88-89, 119
  Russian, 89
  Spanish, 89, 122-123
Translation and Interpretation, 124
  Two Languages, 124-125
  Staff, 87
Motion Picture Production, 36
Museum, University, 33-34, 216
Music, School of, 6
  Activities, 29, 179
  Applied credit, 179
  Courses, 178-182
  Major(s) and/or minor(s), 89-92, 120-121, 130-131
  Participation credit, 90, 179
  Special fees, 21
  Staff, 89, 216
Music, Master of, degree, 130-131
Music organizations, 29, 90, 179
National Council for the Accreditation of Teacher Education (NCATE), 5
National Direct Student Loan (see Perkins Loans)
National Student Exchange, 10
Natural History Interpretation
  Major and/or minor, 63
  Natural Sciences, College of, 7-8
  Dean of the College, 214
  Departments, 7
  Non-degree status, 107-108
  Non-degree student, 107-108
  Nondiscrimination Policy, 59
  Non-resident Classification, 16-17
  Non-thesis plan, 112, 135
  North Central Association of Colleges and Secondary Schools (NCA), 5
  Northern Iowa, 31
  Notice of intent to register, 19
  Numbering of areas, departments, and courses, 145
  Guide to Course Numbers, 145-146
  Nurses, General Studies major for Registered Nurses, 39-40
  Nursing, Allen Memorial School of, 41
  Nursing, University of Iowa, 40-41

Objectives, University, 5
Off-Campus Courses, 11, 56
Office Information Systems
  Major and/or minor, 82
  Office hours and holidays, 19
  Officers of Administration, 214
  Open credit system, 56
  Orchestra credit, 179
Organizations, Student, 29-31
Orientation, New Student, 27
Outline for Organization and Requirements for Master's Degrees, 133
Overloads (see: Credit, Maximum)

Philosophy and Religion, 6
  Courses, 186-187
  Major(s) and/or minor(s), 92-93
  Staff, 92
Physical Education (see: School of Health, Physical Education and Recreation)
  Physical examinations, 15, 109
Physical Therapy, 40
Physics, 7
  Courses, 202-204
  Major(s) and/or minor(s), 93-94, 121
  Staff, 93
Placement Services, 28, 50
  Staff, 217
Plagiarism, 58-59
Policies
  Academic Warning, Probation, and Suspension, 55
  Admission, 13-17, 107-109
  Graduate students, 107-109, 134, 137-138, 140-141
  Residents and Nonresidents, Classification of, 16-17
  Transfer students, 13-14, 15-16, 109
  Undergraduate students, 13-17
  Advanced Placement Program, 58
  Attendance, 54
  Auditing Classes, 57
  Change of Registration, 53
  College Level Examination Program (CLEP), 57
  Conduct, Student, 59
  Cooperative Education, 56
  Correspondence Study/Extension Credit, 11, 56, 112
  Credit by Examination, 56, 57
  Credit/No Credit Grading, 55-56
  Dean's List, 55
  Duplication, 54
  Enrollment, 19, 53
  Exceptions to Academic Policy, Student Requests for, 53, 58
  Extension Credit (and Correspondence Study), 11, 56, 112
  Failed Courses, 54, 55
  Fee Payment and Billing, 21-22
  Financial Aid Office, 22-25
  Satisfactory Progress, 23
  General Education Program, 47-49
  Grade Index, 43, 49, 50, 53, 54-55, 109, 135, 138, 141
  Graduate Credit for Undergraduate Students, 58
  Graduation
    With Honors, 55
    Requirements for (undergraduate), 49-50
  Grievances, Academic (student), 59
  Independent Study, 10-11, 56-57, 103-104, 145
  Making Up of Work, 54
  Marks and Grade Points, 43, 49, 50, 53, 54-55, 109, 135, 138, 141
  Nondiscrimination Policy, 59
  Open Credit System, 56
  Overloads, 53, 109, 138, 141
  Persistence, Student, 59
  Records, Student, 59
  Registration, 19, 53, 54, 109-110
  Regression, 54
  Student Load, 53, 109, 138, 141
  Student Requests for Exceptions to Academic Policy, 53, 58
  Visiting (Auditing) Classes, 57
  Workshops and Study Tours, 9-10, 11, 58, 112
  Writing Competency Examination, 57
(see also: Graduate Program)
Political Science, 8
  Courses, 205-207
  Major(s) and/or minor(s), 94-95, 121
  Staff, 94
Portuguese (see: Modern Languages)
  Portuguese Summer Institute, 9-10
  Post-Baccalaureate, Non-Graduate Study, 109
Practicum, 145
Preparation for Admission (high school course work), 14
Pre-professional curricula or programs, 40-41
Index

President of the University, 214, 227
Presidential Scholars, 24
Pre-Theological Emphasis, 92-93
Price Laboratory School, 6, 37, 101-102
Principalship, Elementary or Secondary School
Majors, 128, 128-129, 136, 137
Probation
Graduate students, 109
Transfer students, 13-14
Undergraduate students, 55
Professional cores (graduate), 111, 112
Professional Education Requirements, 42-43, 68
Professional Sequence, Common (see: Professional Education Requirements)
Program Certificates, 49
Programs
Graduate
Doctor of Education, 53, 137-139
Doctor of Industrial Technology, 53, 139-143
Master of Arts, 53, 114-125
Master of Business Administration, 53, 130
Master of Music, 53, 130-131
Master of Philosophy, 53, 131-132
Second Master’s, 114
Specialist, 53, 134
Specialist in Education, 53, 134-137
Undergraduate
Bachelor of Arts (Joint, Liberal Arts, Other, Pre-professional Cooperative), 39-42
Bachelor of Arts — Teaching, 42-44
Bachelor of Fine Arts, 44
Bachelor of Liberal Studies, 46
Bachelor of Music, 44-45
Bachelor of Science, 45
Bachelor of Technology, 45-46
General Education, 47-49
Individual Studies, 10-11, 103-104, 145
Program Certificates, 49
Provisional admission (graduate), 107, 108, 138, 140, 141
Provisional Certificate, 50, 108, 111, 114, 133, 135
Provisional degree student, 107, 108, 138, 140, 141
Provost, Vice President and, 214, 215, 232
Psychiatric referral, 28
Psychology, 8
Courses, 167-168
Major(s) and/or minor(s), 95-96, 121
Staff, 95
Psychology, Educational, 6
Courses, 151-152, 157-158
Majors, 129, 136-137
Staff, 71
Public Administration
Major and/or minor, 94-95
Public Relations
Major and/or minor, 65
Public Relations, Office of, 34
Staff, 221
Publication
Doctoral dissertations, 139, 142
Doctor of Industrial Technology Degree, 142
Publications (see: Public Relations, Office of)
Q
Quad-Cities Graduate Study Center, 107
R
Radio-Television
Major(s) and/or minor(s), 65-66
Radio-Television Class Credit, 11, 49, 112
Rates, Room and Board, 21
Reading
Courses, 155-156
Major(s) and/or minor(s), 69, 127, 135, 137
Reading and Learning Strategies, 27, 37
Reading, Speaking, and Writing competency requirements, 49-50
Readings, 145
Readmission, 55
Recency of credit, 112
Records, Student, 59
Recreation (see: Health, Physical Education and Recreation, School of)
Recreation, Campus, 29-30
Refunds, 27, 53-54
Regents, State Board of, 214
Regents Universities Student Exchange Program, 10
Registration (see: Enrollment and Registration)
Registration certificate, 21, 54
Registration Procedure
Change of, 21, 53
New students, 19
Former students, 19
Graduate students, 19, 109-110
Notice of intent to register, 19
Regression, 54
Rehabilitation testing, vocational, 27, 28
Reinstatement of certificates, 50
Reinstatement of enrollment (fee), 21
Religion (see: Philosophy and Religion)
Religious activities, 31
Renewal of certificates, 50
Repeating work, 54, 55
Requirements for Graduation
Bachelor’s degree programs, 49-50
Doctoral degree programs, 138-139, 142-143
Master’s degree programs, 111-114
Specialist’s degree programs, 135
Research
Graduate credit on
Doctoral degree programs, 139, 142
Master’s degree programs, 113
Specialist’s degree programs, 135
Undergraduate credit in many departments, 145
Research Continued, 54
Reserves Officers’ Training Corps (ROTC), 24, 41, 87
Residence credit
Graduate programs, 113, 135, 138, 141
Undergraduate programs, 15-16, 49
Residence Halls
Application for rooms, 27
Advance deposits for rooms, 27
Coordinators, 218
Contracts, 21, 27, 53-54
Deposit refunds, 27
Men’s, 27
Occupancy of rooms, 27
Rates and payments, 21
Resident assistant, 27
Women’s, 27
Residence for married students, 27
Resident-Nonresident Classification, 16-17
Resident Assistant, 27
Review Committee, 16
Room and Board Options for, 21
Refunds, 27, 53-54
ROTC, 24, 41, 87
ROTC Scholarships, 24, 41, 87
Russian (see: Modern Languages)
Russian/Soviet Area Studies
Major and/or minor, 105
247
S

Safety Education
Courses, 160

Major and minor, 69, 70

Saturday, evening, and short-term classes, 11, 112

Scholarship requirements on
Graduate
Doctoral degree programs, 138, 141
Master’s degree programs, 108, 109, 110, 112
Specialist’s degree programs, 135

Undergraduate, 43, 49, 50, 53, 54-55

Scholarships and awards, 23-25

Scholars, Presidential, 24

School Business Management

Major(s) and/or minor(s), 128, 136

School of Business, 8

Dean of the School, 215

Departments, 8

Scholarships and grants, 24

School Counseling (see: Educational Administration and Counseling)

School Psychology (see: Educational Psychology and Foundations)

Science and Science Education

Courses, 197-198

Major(s) and/or minor(s), 96-97, 122, 134

Specialist’s degree program, 134

Science Symposium Award, 24

Second Baccalaureate degree, 50

Second Master’s degree, 114

Secondary School Teaching

Major(s) and minor(s), 42-44, 45

Secretarial (see: Information Management)

Semesters, organized by, 19

Seminar, 145

Senate, Student, 30

Services, Educational (and Facilities)

Academic Advising, 27-28

Academic Computing Services, 35

Advanced Placement Program, 58

Art, Gallery of, 33

Broadcasting Services, 6, 34

Center for Academic Achievement, 37

Center for Urban Education (UNI-CUE), 36

Commons, 33

Conferences and Workshops, 11

Continuing Education and Special Programs, 11

Curriculum Laboratory, 35

Educational Media Center, 35-36

Educational Opportunity Programs, 36-37

Ethnic Minorities Cultural and Educational Center (Culture House), 37

Exhibits, 33-34

Foreign Student Programs, 28-29

General Studies Program, 11, 46, 103

Individual Studies Program, 10-11, 46, 103

Interdisciplinary Educational Laboratory, 36

Iowa Lakeside Laboratory, 8-9

Iowa Teachers Conservation Camp, 9

Library, University, 33

Malcolm Price Laboratory School, 6, 37

Maucker Union, 33

Museum, University, 33-34

National Student Exchange, 10

Public Relations, Office of, 34

Regents Universities Exchange Program, 10

Saturday and Evening Classes, 11, 112

Short-term classes, 11, 112

Speech and Hearing Clinic, 37

Study Abroad, 9-10

Social and Behavioral Sciences, College of, 8

Dean of the College, 214

Departments, 8

Social Foundations, Courses in, 157-158

Social Life, 27-31

Social organizations, 29-31

Social Science

Courses, 204-205

Major(s) and/or minor(s), 97, 122

Social Work, 8

Courses, 172-173

Major(s) and/or minor(s), 98

Staff, 98

Sociology and Anthropology, 8

Courses, 210-213

Major(s) and/or minor(s), 98-99

Staff, 98

Sororities, honor and social, 31

Spanish (see: Modern Languages)

Speech, Reading, and Writing competency requirements, 49-50

Special area studies, 102-105

Special Education, 6

Courses, 154-155

Major(s) and/or minor(s), 99-100, 129, 137

Staff, 99

Specialist degree program, 134

Specialist in Education degree programs, 134-137

Speech (see: Communication and Theatre Arts)

Speech and Hearing Clinic, 37

Speech-Language Pathology and Audiology (see: Communicative Disorders)

State Board of Regents, 214

Establishment of scholarships, 23

Fees subject to change, 21

Governs, 5

Membership, 214

Public relations program, 34

State Department of Education, 50, 101, 114

Statement of Further Work (see: Degree Audit/Advisement Report)

Student Alumni Council (SAC), 34

Student concerts, 31

Student conduct, 59

Student costs, 23

Student fees (see: Fees)

Student Field Experience, 6, 101-102

Courses, 159

Staff, 101

Student teaching, 101-102

Student Government, 30

Student Health Service, 28

Student Housing, 27

Accommodations for family housing, 27

Student Load, 53, 109, 138, 141

Student loan funds, 22, 110

Student newspapers, 31

Student organizations, 29-31

Student orientation, 27

Student Persistence, 59

Student Personnel Services programs, 128, 136, 137

Student Publications, 31

Student Records, 59

Student Requests for Exceptions to Academic Policy, 58

Student Rights and Responsibilities, 58-59

Student Senate, 30

Student Services

Academic Advising, 27-28

Career Services, 28

Center for Academic Achievement, 37

Cooperative Education, 56, 145

Counseling Services, 28

Orientation, 27

Placement Services, 28, 50

Speech and Hearing Clinic, 37

Student Health Service, 28

Student Spouse Activity Program, 31

Student Services, Division of Educational and, 217-218

Vice President for, 214
Residence and Dining Areas
16a Bartlett Hall F-7
2 Bender Hall E-8
6 Campbell Hall E-7
51 College Courts D-2
15 Commons Dining Center F-6
4 Dancer Hall E-8
40 Hagemann Hall D-4
53 Hillside Courts I-1
14 Lawther Hall E-7
45 Noehren Hall D-3
27 President’s Home H-6
44 Redeker Center E-4
41 Rider Hall E-4
46 Shull Hall E-3
3 Towers Dining Center E-8

Living and Dining Areas
16a Bartlett Hall Student Services G-7
23 Campanile F-6
7 Center for Business and Behavioral
Research F-7
15 Commons and Media Center F-6
21 Culture House H-6
42 Gilchrist Hall G-4
38 Greenhouse G-5
24 Library F-6
5 Mathematics Learning Center F-8
25 Maucker University Union G-6
50 Plant Services Building C-2
17 Office of Development H-7
32 Art II F-5
49 Power Plant No. 2 A-3
12 Student Health Center E-7
9 UNI-Dome C-6
47 Visitor Information Center G-3

Administration and Institutional Areas

Campus Map Directory
Building numbers begin at the north end of campus and continue to the south.

Academic and Activity Areas
28 Art Building D-5
10 Athletic Fields A-7
20 Auditorium Building H-6
34 Baker Hall F-5
48 Biology Research Complex H-4
29 Communication Arts Center D-5
26 Crafts Shop and Archaeological Lab G-6
18 East Gymnasium and Pool G-6
13 Education Center E-6
52 Industrial Technology Center H-3
43 Latham Hall G-4
8 Physical Education Center B-7
19 Physics Building G-6
1 Price Laboratory School E-10
33 Psychology No. 1 F-5
31 Russell Hall E-5
36 Sabin Hall G-5
39 McCollum Science Building H-5
37 Seerley Hall H-5
30 Strayer-Wood Theatre D-5
22 West Gymnasium E-6
35 Wright Hall G-5
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

Financial Aid Office
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 assistance
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