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University Catalog 1992-1994

University of Northern Iowa

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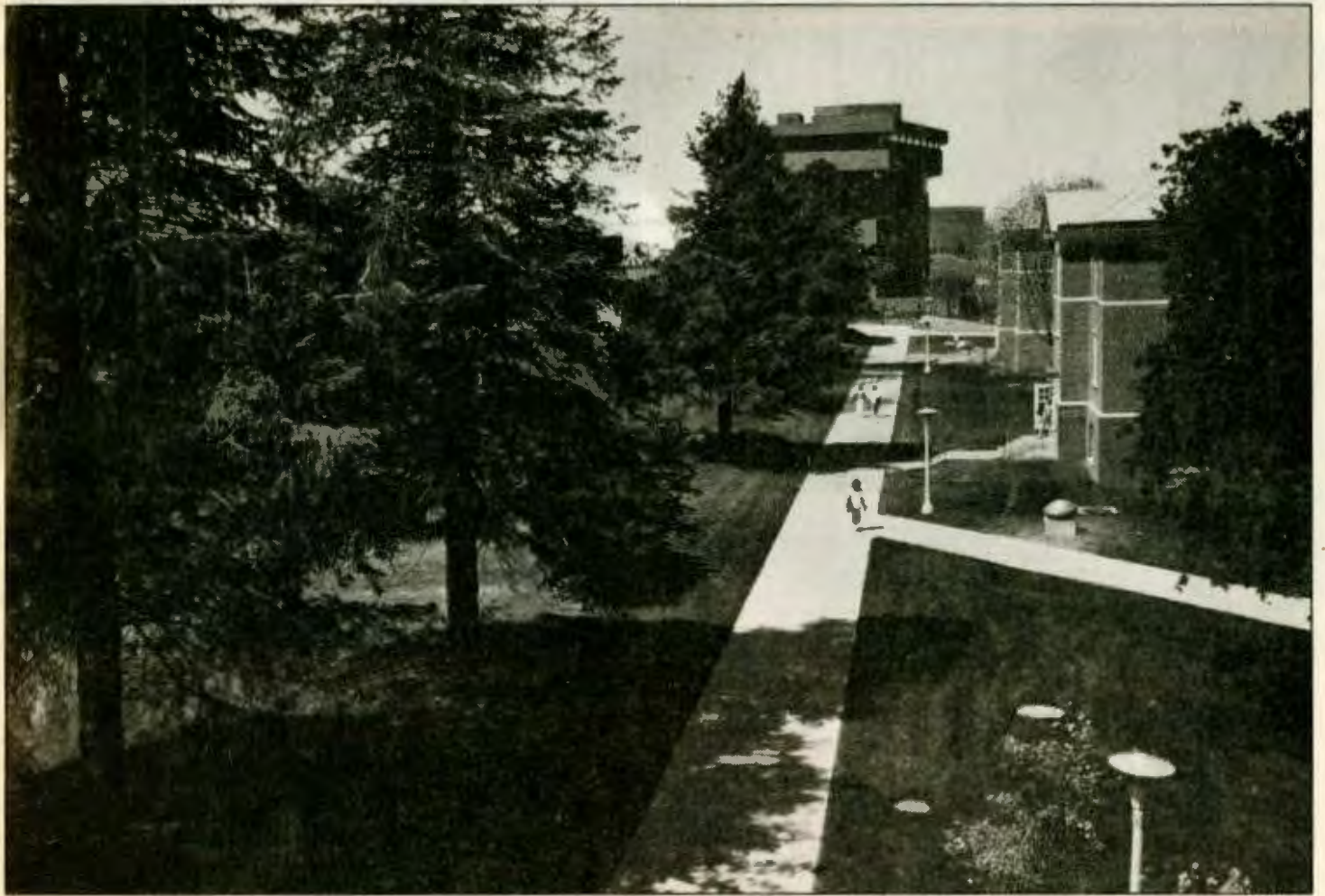
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University of Northern Iowa



Catalog 1992-1994

University of Northern Iowa



University Catalog 1992-1994

Effective Fall Semester 1992

UNIVERSITY OF NORTHERN IOWA

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▼ Academic Calendar 1992-1994



Summer Session, 1992—

June	5	Fri., Registration, 8 a.m.—4 p.m.
June	8	Mon., Instruction begins, 7:30 a.m.
July	2	Thurs., First four-week session ends
July	3	Fri., Legal Holiday
July	6	Mon., Second four-week session begins
July	31	Fri., Summer sessions end

Summer Session, 1993—

June	4	Fri., Registration, 8 a.m.—4 p.m.
June	7	Mon., Instruction begins, 7:30 a.m.
July	2	Fri., End first four-weeks
July	5	Mon., Legal Holiday
July	6	Tues., Begin second four weeks
July	30	Fri., Summer sessions end

Fall Semester, 1992—

Aug.	24	Mon., Registration, 9 a.m.—4 p.m.
Aug.	24	Mon., Instruction begins, 4 p.m.
Sept.	7	Mon., Legal holiday (Labor Day)
Oct.	17	Sat., End first half semester, 12 noon
Oct.	19	Mon., Begin second half semester, 8 a.m.
Nov.	24	Tues., Thanksgiving vacation begins, 10 p.m.
Nov.	30	Mon., Instruction resumes, 8 a.m.
Dec.	14-18	Mon.-Fri., Final examinations
Dec.	18	Fri., Semester ends
Dec.	19	Sat., Commencement

Fall Semester, 1993—

Aug.	23	Mon., Registration, 9 a.m.—4 p.m.
Aug.	23	Mon., Instruction begins, 4 p.m.
Sept.	6	Mon., Legal holiday (Labor Day)
Oct.	16	Sat., End first half semester, 12 noon
Oct.	18	Mon., Begin second half semester, 8 a.m.
Nov.	23	Tues., Thanksgiving vacation begins, 10 p.m.
Nov.	29	Mon., Instruction resumes, 8 a.m.
Dec.	13-17	Mon.-Fri., Final examinations
Dec.	17	Fri., Semester ends
Dec.	18	Sat., Commencement

Spring Semester, 1993—

Jan.	8	Fri., Registration, 9 a.m.—4 p.m.
Jan.	11	Mon., Instruction begins, 8 a.m.
Feb.	27	Sat., End first half semester, 12 noon
Mar.	1	Mon., Begin second half semester, 8 a.m.
Mar.	13	Sat., Spring vacation begins
Mar.	22	Mon., Instruction resumes, 8 a.m.
May	3-7	Mon.-Fri., Final examinations
May	7	Fri., Semester ends
May	8	Sat., Commencement

Spring Semester, 1994—

Jan.	17	Mon., Registration, 9 a.m.—4 p.m.
Jan.	17	Mon., Instruction begins, 4 p.m.
Mar.	5	Sat., End first half semester, 12 noon
Mar.	7	Mon., Begin second half semester, 8 a.m.
Mar.	19	Sat., Spring vacation begins
Mar.	28	Mon., Instruction resumes, 8 a.m.
May	9-13	Mon.-Fri., Final examinations
May	13	Fri., Semester ends
May	14	Sat., Commencement

▼ General Information

This catalog is published for students and other persons who want to know more about the University of Northern Iowa. Its purpose is to communicate as objectively and completely as possible what the university is and what it does. The catalog is presented in sections to give a 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 Master of Public Policy, 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 650 members and a total enrollment of about 13,000. In addition to its physical growth, the university continues to support programs that reach into the wider community, including the UNI Center for Urban Education (UNI-CUE) which is located in the heart of the urban area of Waterloo, 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 1989:



"The University of Northern Iowa, a public institution of higher learning, embraces a tripartite mission of teaching, research, and professional service.

"To fulfill this mission and attain greater educational distinction, the University is committed to maintaining its historical emphases on instructional excellence and faculty/student interaction; on promoting faculty development through research, creative activity, and continuing scholarship; and on serving the citizens of Iowa and the nation through appropriate professional activities. In seeking to create, preserve, and disseminate knowledge, the University is committed to providing an optimal level of learning opportunities for the intellectual development of its students, faculty and staff.

"The University of Northern Iowa offers a broad range of degree programs and educational opportunities at the undergraduate and master's levels, and advanced study in selected practitioner-oriented doctoral programs. These academic degree programs are complemented by a range of continuing and non-traditional educational opportunities, both on and off campus.

"Above all, the pursuit of excellence and distinction in all University programs and activities is critical to fulfilling the University's public responsibilities for the development of an educated and productive Iowa citizenry and for providing leadership and service to the nation and the world."

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 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, the American Dietetic 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 Business Administration

The College of Business Administration houses five departments: *Accounting, Economics, Finance, Management and Marketing*. The Bachelor of Arts (B.A.) degree is offered by all five departments. Teaching licensure is offered in three areas: Business — General, Business — Office, and Business — Marketing/Management. All teaching programs are offered through the Management Department. In addition to its undergraduate programs the College offers a graduate program leading to the Master of Business Administration (M.B.A.) degree. Finally, the College of Business Administration serves numerous other disciplines in the university through its offering of selected professional courses.

The primary objective of the College of Business Administration 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, College of Business Administration faculty members are also engaged in a variety of research and scholarly projects, both theoretical and practical. In addition, the College is actively involved in the use of computers for both teaching and research. Students of the College may utilize its large computer laboratories, as well as having access to the university's new VAX mainframe computer.

While the provision of a first-class professional education is their major concern, faculty members and administrators in the College of Business Administration 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.

The College of Business Administration is the academic unit responsible for providing degree programs in business and management. Degree programs offered by other Colleges may not include more than 25% of the degree requirements in College of Business Administration course work, excluding Economics.

College of Education

The College of Education includes six 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, leisure services, therapeutic recreation majors and graduate majors in counseling, communications media, health, and youth/human service agency administration.

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, library science, safety education, educational media and communications media, and education of the gifted. The department also operates a day care center. Master's and specialist's graduate degree programs are offered as well as an Ed.D. intensive study area in curriculum and instruction.
- *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. The department has two master's graduate degree programs, and one specialist's graduate degree program.
- *School of Health, Physical Education, and Leisure Services*: Health, physical education, leisure services, 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.
- *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.
- *Teaching*: The Department of Teaching is responsible for the administration of its two divisions — 1) Malcolm Price Laboratory School; 2) Office of Student Field Experiences. Malcolm Price Laboratory School 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. The Office of Student Field Experiences is responsible for administering the student teaching component and other field experiences of UNI's undergraduate teacher education program. A statewide network of cooperating school centers offers a variety of student teaching sites in urban, suburban, and rural school systems. Each center is staffed with a coordinator who is a member of the UNI faculty and who is responsible for administering the student teaching program within the center and for supervising student teachers on a regular basis. Carefully selected district level supervisors and teachers who possess special qualities, teaching skills, and levels of competence also provide continuous classroom supervision for the student teachers.

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

General Information

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 licensure 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 academic 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, KUNI and KHKE, 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, Teaching English to Speakers of Other Languages (TESOL), Journalism, French, German, Spanish, Russian, Music, Philosophy, Religion, Communication (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 and Performance, 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. Graduate and certificate programs of the college include a major in foreign language translation master's degree as well as certificate programs in bilingualism, translation, and interpretation, and international commerce (the latter in cooperation with the College of Business Administration). The Department of Philosophy and Religion has a new program that joins a departmen-

tal major with the Master of Business Administration (M.B.A.).

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

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

Administratively housed in the College of Humanities and Fine Arts are UNI's two separately programmed public radio stations. KUNI-FM serves the Cedar Falls/Waterloo, Cedar Rapids, and Iowa City areas at 90.9 on the dial. KUNI can also be heard at 98.3 in Dubuque and at 94.5 in the Quad Cities and at Mason City. This station broadcasts quality music and public affairs features each day. KHKE-FM, at 89.5 on the dial, serves the Cedar Falls/Waterloo metro area with a jazz and classical 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 learning and for living in a rapidly changing society and economic milieu. While some of our students pursue teaching careers in the arts or the humanities, other students, in Communicative Disorders, for example, look toward careers as professional therapists. A number of our majors will become professional performers as actors, artists, or musicians. The largest number of students in the College of Humanities and Fine Arts, however, encounter the college through their general education courses—in the humanities, in literature or writing courses, in philosophy and religions courses, in arts appreciation courses in art, music, and 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 seven instructional departments in the College of Natural Sciences. These are: *Biology, Chemistry, Computer Science, Earth Science, Industrial Technology, Mathematics, and Physics*.

Majors and minors are available in all departments on both teaching and liberal arts programs leading to the Bachelor of Arts degree, with the exception of Computer Science which does not have a teaching major. The departments of Biology, Chemistry, Earth Science, and Physics have majors leading to the Bachelor of Science degree. In addition, students may major in science on both programs; this is an interdepartmental major and is offered under the general jurisdiction and supervision of the Dean of the College.

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

The degree of Bachelor of Technology may be earned with majors in the Department of Industrial Technology. This degree provides educational experience for those who wish to work as technologists in industry or as teachers in trade and technical schools.

There are graduate majors in all departments and science and science education for students working for a degree of Master of Arts. A major in science education may be selected for the Specialist degree. The degree of Doctor of Industrial Technology was authorized in 1978.

The career opportunities for graduates in the College of Natural Sciences are numerous and diverse. All departments offer programs for prospective teachers in elementary and secondary schools. Departmental offices are excellent sources of information about other careers.

The College of Natural Sciences is involved in a number of inter-departmental and intercollegiate projects. An annual Science, Mathematics and Technology 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. 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 *Design, Family and Consumer Sciences, Geography, History, 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 career 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. A Bachelor of Science degree is awarded to students completing the dietetic major.

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, political science, psychology, sociology, social science, and public policy.

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 collegiate faculty have achieved national and international recognition in their fields.

Career 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.

Division of Continuing Education and Special Programs

The University of Northern Iowa has had an organized extension program since 1913. As an integral part of its total responsibility to the state, the university has a legislative charge to provide public services to assist in the cultural, economic, and social development of Iowa residents. The division works cooperatively with the UNI staff in providing services to the public schools, business and industry, and other community and professional groups through a variety of programs. Included in Continuing Education and Special Programs are off-campus extension-credit work, non-credit classes, conferences and workshops. The Continuing Education Unit (CEU) is also used, and details of this program are available in the division office.

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.

Credit Programs

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 UNI 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 UNI instructor. For more information about telecourses, contact the Office of Continuing Education and Special Programs.

Non-Credit Programs

Conferences and Workshops—The Office of Professional and Educational Seminars and Institutes as a part of the university's program of continuing education, facilitates many conferences and workshops 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. This office is also active in the development of new university sponsored conferences, workshops and seminars.

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.

Individual Studies Program

The Individual Studies Program is under the auspices of University Continuing Education and Special Programs. The follow-

General Information

ing program options and course offerings are available through Individual Studies:

- National Student Exchange Program
- Exploratory Seminar: Self-Forming
- Interdisciplinary Readings
- Undergraduate Thesis
- Individual Study Project
- Bachelor of Liberal Studies Degree (see page 37)
- Individual Studies major (see page 72)
- General Studies major (see page 71)
- General Studies for Nurses (see page 32)

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 students to get better acquainted with different social and educational patterns in other areas of the United States while paying UNI tuition. NSE encourages students to experience new life and learning styles, learn more about themselves and others, and broaden their educational backgrounds through specialized courses or unique programs which may not be available at UNI. Students may exchange to one of 102 colleges and universities such as California State University (Fresno), University of New Mexico, University of Idaho, University of Georgia, University of South Carolina and University of Maine (Orono).

Students make exchange preparations through the Individual Studies Office. Sophomores and juniors with at least a 2.75 grade point average may take part in the program for either a semester or an entire year. Summer exchanges are also possible with some institutions. Financial aid and scholarship 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 must be submitted in the spring semester prior to the academic year in which an exchange is planned.

Individual Studies Courses:

Self-Forming Seminar (00:192, section 1). This course is a type of group independent study which allows students with a common interest to organize a time for study together with each member of the team often working on part of a larger problem or project. A faculty consultant must agree to evaluate the completed project at the end of the term.

Interdisciplinary Readings (00:196). This course allows the student to develop a program of readings on a topic not dealt with in the university's regular course offerings. The reading list and the number of credit hours must be approved by a faculty member specifically chosen to supervise and aid the student in his/her work.

Undergraduate Thesis (00:197). The writing of a thesis is required of all Individual Studies majors. This six-credit project may take the form of a research paper, creative work, or application of knowledge gained from an internship or work-related experience. The thesis topic must be approved by the faculty advisor. Copies of "Undergraduate Thesis Guidelines" are available in the Individual Studies Office.

Individual Studies Project (00:198). This course is an opportunity for research, creative work, or experience-oriented study in areas not usually covered by the university curriculum. The form of the project and the number of credit hours assigned to the project (usually 1-3) are worked out between the student and the faculty consultant selected.

Registration Procedures. All Individual Studies courses are listed in the schedule book and may be found by referring to the first page of course offerings. In addition to listing the Individual Studies course on the registration form, the filing of a prospectus is

required. The prospectus is a written contract between student and faculty consultant which states what will be done, how it will be done and what constitutes a completed project. The prospectus must be signed by the consultant and turned in during the second week of classes. Copies of "Guidelines for Independent Study" are available in the Individual Studies Office. This handout answers many questions about the policies and procedures to be followed by students enrolled in Individual Studies courses.

International Programs and Study Abroad

International Programs: 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 Programs 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 UNI. The foreign language requirements for all UNI 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.

Study Abroad: The 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. 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 Arica, Chile. The foreign language programs are conducted in France, Germany, Austria, Spain, and Latin America. In addition, study tours are frequently arranged. Recently they have taken UNI students to Western Europe, the Soviet Union, Latin America and East Asia.

The **Overseas Student Teaching** program is administered by the Office of Student Field Experiences in the College of Education. Students enrolled in teaching majors may apply to spend ten weeks student teaching in fully accredited international or American schools abroad. The language of instruction is English, and knowledge of a foreign language is not required. Students may apply for overseas placement at the time of general application for student teaching, or at least four months prior to the student teaching semester. A four-week student teaching assignment in Iowa completes the semester of student teaching and fulfills state licensure standards. Financial aid is available to qualified students.

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 **German Summer Institute in Austria** is a seven-week program held in Klagenfurt (Austria). It is intended for those who want to improve their speaking and writing skills and for those who want to gather first-hand information about the German-speaking coun-

tries in Europe. Participants may also fulfill course requirements for the M.A. in German by attending several summer sessions plus doing work between summers. The program includes a range of courses in Conversation, Composition, Grammar Review, Stylistics, Landeskunde (Culture and Civilization), Literature, Linguistics, Methods of Teaching German, and Translation, as well as educational trips to regional places of interest. Participants can live with Austrian families or in a very modern dormitory next door to the Paedagogische Akademie, where classes are held. For information, contact Reinhold Bubser, Department of Modern Languages, UNI, Cedar Falls, IA 50614-0504.

The *University of Northern Iowa Austrian Semester* is an exchange program of one faculty member and University of Northern Iowa students with a faculty person and students from the University of Klagenfurt, Austria. Each university sends its exchange group for one semester in alternate academic years. UNI students will find a number of courses in various disciplines offered in English and/or German for a full semester of credit. Open to liberal arts and sciences, business, and education students.

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 six to 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 held in Soria, Spain and provides nine hours of credit. It is designed for primary and secondary teachers of Spanish who want intensive training in oral skills and who would like to have personal contact with the Spanish people. Each participant will live with a Spanish family while attending formal classes. Areas of historical and cultural interest in the province of Soria will be visited.

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 seven weeks of instruction on three levels: intermediate, advanced, and very advanced. There will also be one week of independent travel. This program is open to undergraduate and graduate students. Up to 10 semester hours of credit may be earned. Applicants should have a good basic knowledge of German.

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 a six to eight-week program sponsored jointly by the three Iowa Regents' Universities in cooperation with the University of Valladolid. The program is designed for undergraduates and those beginning their graduate studies. Included are a week of independent travel and study at the University of Valladolid with excursions to neighboring cities. Students live with Spanish families while in Valladolid.

The University of Northern Iowa Study Program in Guatemala:

A two-week program in Guatemala City (June 18-July 5, 1993). It includes a seminar on contemporary Central America, living with Guatemalan families, and educational trips of the region. Classes are held at a reputable university. Two to four graduate or undergraduate level credits are available.

For further information, contact Robert Krueger, Director, UNI Study Program in Guatemala, Department of Modern Languages, UNI.

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 summer, semester-length and semester-interim programs in Europe and the Far East. Programs are conducted in cooperation with foreign universities, institutes, and business firms. Participants may enroll for either undergraduate or graduate credit.

The *UNI Study Program in Mexico*: Two programs are available in Colima, Mexico, both through an agreement with the Universidad de Colima (U de C). This program is designed primarily for intermediate- and advanced-level undergraduates, though graduate credit can be arranged. There is a two and one-half week session held during the semester interim in December and January for which students receive three (3) semester hours of credit and a session in the fall semester for which up to 15 semester hours of credit may be earned.

While living in Colima, students are housed with Mexican families on a one-student-per-family basis. During the semester interim session classes are held in the facilities of the U de C and are taught by UNI faculty members. During the semester regular UNI courses by correspondence are supervised by the Director of International Programs of the U de C.

The *UNI Extended Semester in Spain (UNIESIS)*: In cooperation with the University of Extremadura: SITE - University of Extremadura, Caceres, Spain. ANTICIPATED DATES for 1992 - January 9 to June 9. COST: \$4,482.00 plus air fare and incidental expenses. HOUSING - Primarily with Spanish families. ACADEMIC PROGRAM - During the spring semester participants may earn 18 semester hours of resident credit: A) By attending two classes, *Spanish Civilization* and *Written Communication* — offered specifically for our group by University of Extremadura faculty members accustomed to instructing American students. A third such course, *Introduction to Spanish Literature*, will also be available to advanced level participants; B) attending translation and interpretation classes with Spanish students; C) attending, essentially as auditors, regular University of Extremadura classes in such areas as history, art history, geography and literature, depending on their interests; D) participating in excursions and activities; and E) participating in a two-week capstone course given by the Director, a professor of Spanish at the University of Northern Iowa, immediately after the end of their spring semester — near the end of May.

For additional information, contact Dr. D. C. Hawley, Director, UNIESIS, Department of Modern Languages, Cedar Falls, IA 50614.

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

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

Information and application materials are available in the International Services Office, (319) 273-6421.

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 of representatives from the three state institutions has charge of the program. Unusual opportunities for field studies and research are available for both undergraduates and graduates during the two five-week summer sessions. The Lakeside Laboratory Bulletin, available about February 1, lists the courses to be offered the following summer with detailed directions of enrollment. Courses regularly offered at the Laboratory are listed on pages 184-185 of this bulletin. Further information may be obtained 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.

The Science and Engineering Research Semester provides undergraduates and graduate students with opportunities to study and conduct research at the forefront of their scientific fields of interest. Participants in this one-semester (15 week) program become members of research teams at one of the participating Department of Energy national laboratories engaged in long-range, intensive investigations employing advanced scientific facilities and equipment. While the program emphasizes hands-on laboratory activity, it is supplemented by an educational enrichment program which includes seminars, academic courses, and advanced instrument training. Up to 15 semester hours of credit may be earned. To be considered for the program a student must have junior standing and a grade point average of 3.0 or above on a 4.0 scale. Further information can be obtained from the Dean of the College of Natural Sciences.

Regents Universities Student Exchange Program: University of Northern Iowa students may take courses at either of the other two Regents universities (Iowa State University or the University of Iowa) for UNI resident credit. 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 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 processing of the application. Detailed information and application forms for the exchange program are available from the Office of the Registrar, UNI.

Washington Center Internships and Seminars: The University of Northern Iowa is affiliated with The Washington Center, a nonprofit educational agency, which offers internships and seminar programs for graduate and undergraduate students in all majors. Any student may participate in two- or three-week seminars addressing topics such as leadership, the law and society, and domestic or foreign policy. Juniors and seniors may go to Washington for a one-semester internship. Academic credit from UNI may be earned for the internships and seminars. Information on these programs is available from the Director of Leadership Studies in Room 104 of the Student Services Center.

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

Students who plan to enroll for Saturday and/or evening classes **ONLY** may register by mail. Mail-in forms are available in the Office of the Registrar upon request. Schedules of classes are generally available in April for the fall semester and in November for the spring semester. Specific instructions for registration by mail are contained in the schedule and on the mail-in registration form.

Specific information for each semester's registration is available at the Office of the Registrar.

▼ Admission Requirements

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 required 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.

Admission of Undergraduate Students by Transfer from Other Colleges

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

Applicants must submit a formal application for admission, together with a \$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 UNI. Transfer students must have or exceed the following combination of grade point and total semester hours for admission to UNI.

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.

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

Admissions Requirements

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 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 UNI'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 UNI 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-With 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.

Subject	Requirement	Explanation
English	4 years	Must have a minimum of 4 years of English that may include 1 year of speech, communications and/or journalism. Must have a minimum of 1 year of composition.
Mathematics	3 years	Must have a minimum of 1 year of algebra. Must be sequential courses of increasing or parallel levels of difficulty.
Social Studies	3 years	Anthropology, economics, geography, government, history, psychology and/or sociology are acceptable.
Science	2 years *	General science, biology, chemistry, earth science and/or physics are acceptable. Laboratory experience is highly recommended.
Electives	2 years	Additional courses from subject areas identified above are acceptable. May include foreign language and/or fine arts. Foreign language courses are not required for admission to the University of Northern Iowa, but these courses may be used to meet university graduation requirements.

* 3 years effective for those applicants graduating from high school Spring 1995 and after.

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

A graduate of a college or university accredited by the North Central Association of Colleges and Secondary Schools or a corresponding regional agency will be granted admission to graduate study if his or her application for admission has been approved. See pp. 90-91 for regulations governing admission to graduate study.

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

Application Procedures

Before being permitted to register in the university a student must have filed an application for admission with the required records and other supporting material, have met all conditions, and have been issued an admission statement by the Director of Admissions. Individual students may be required to come to the campus for an interview. Those who do not give reasonable promise of success as students at the university may be denied.

Representatives of the university, both on and off campus, encourage or discourage an applicant for admission on the basis of his or her academic record, scores on standardized tests, seriousness of purpose, statements from teachers, counselors, school administrators, and similar evidences of potential ability to do college work. The admissions decision is not determined or influenced by the age, color, creed, disability, national origin, race, religion, or sex of the applicant.

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

A student should take the following steps in applying for admission to the university. These should be taken as far in advance as possible since admissions may be granted up to twelve months in advance of the opening of the term for which application is being made.

- A. Application for Admission.** The application for admission form is obtained from the Director of Admissions, University of Northern Iowa, Cedar Falls, Iowa 50614. Complete the application carefully and return as indicated on the form. Your request for an application for admission should indicate whether you wish to enroll for undergraduate or graduate study and the semester you wish to enter the university. Specific information for the admission of students to graduate study is given on pages 90-91.
- B. Application Fee.** A fee of \$20 must accompany the application. The fee is not refundable 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. Test scores must be sent directly to UNI by the testing company.

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.** Undergraduate applicants for admission to UNI are not required to file a report of a physical examination or a medical history. However, the university does require documentation of measles (rubeola) immunization by all students. Instructions for complying with this requirement will be sent to each student upon admission. In the interest of providing optimum health care, the University Health Services recommends that incoming students who have physical disabilities or health concerns provide the Health Center with information concerning their situation. (See pages 22-23 for services available through University Health Services.)
- 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 UNI 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 90-91.

Classification of residents and non-residents for admission and fee purposes for all students is listed on pages 14-15.

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:

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1. The number of hours required for the degree less the number of hours accepted in transfer.
 2. All general education courses for which no reasonable substitute can be found.
 3. All work of the majors and minors, excluding such specific requirements as many have been met by accepted transfer courses, and including specific courses of the first two years or prerequisites for advanced courses where no acceptable transfer courses are presented. A transfer student is required to take at least 10 hours of work in the major at this university.
 4. Scholarship requirements: (see statement *B-Scholarship* under *Requirements for Graduation*, page 40).
- 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 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 1992 and 1993 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 the Registrar.

University Office Hours — The university's principle 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:

	1992	1993
New Year's Day	Wed., Jan. 1	Fri., Jan. 1
Memorial Day	Mon., May 25	Mon., May 31
Independence Day	Fri., July 3	Mon., July 5
Labor Day	Mon., Sept. 7	Mon., Sept. 6
Thanksgiving	Thur., Nov. 26— Fri., Nov. 27	Thur., Nov. 25— Fri., Nov. 26
Christmas	Thurs., Dec. 24— Fri., Dec. 25 Thurs., Dec. 31	Fri., Dec. 24— Mon., Dec. 27 Fri., Dec. 31

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 in the Schedule of Classes.

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.

▼ Fees and Financial Aid

Student Costs

The overall costs for undergraduate students who are residents of Iowa is approximately \$7,708 for the academic year.

Tuition	\$2,088
Board and Room	\$2,620
Books, supplies and incidentals	\$3,000

Non-resident students are charged an additional \$3,342 tuition.

Students are required to provide their own books. Ordinarily the cost for these books will be \$550 per academic year. Students may buy their texts from any source. A student organization operates a book exchange at the beginning of each semester.

Schedule of Fees

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

Effective June 1, 1992

Iowa	Non-
Residents	Residents

I. Tuition

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

Undergraduate Credit Hours

1	\$ 174	\$ 174
2	174	174
3	261	261
4	348	348
5**	435	1,135
6	522	1,362
7	609	1,589
8	696	1,816
9	783	2,043
10	870	2,270
11	957	2,497
12 or more	1,044	2,715

Graduate Credit Hours

1	\$ 262	262
2	262	262
3	393	393
4	524	524
5**	655	1,665
6	786	1,998
7	917	2,331
8	1,048	2,664
9 or more	1,173	2,993

B. Workshops (xx:033, 133, 233)

per credit hour	\$ 108	\$ 108
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(Workshop fees are paid on a credit-hour basis without regard to classification or resident status, and are assessed separately from the above schedule.)

*Includes \$68.20 per student for the fall or spring semester or \$29.85 per student for summer session for student activities and specified building and debt service fees.

**A \$30 health fee will be added to registrations of five or more hours.

A \$40 computer fee will be added to registrations of fulltime students (\$30 - 3/4 time; \$20 - 1/2 time; \$10 - less than 1/2 time).



II. Residence Hall Fees

	Semester	Academic Year
Double Occupancy, all residence halls:		
Full board and room	\$1,310	\$2,620
No board plan (Bartlett only)	590	1,180
Residence Hall Activity Fee	4	8

Single occupancy, all residence halls: add \$225* to above rates. No breakfast meal board option: deduct \$25* from above rates. No weekend meals board option: deduct \$30* from above rates. No breakfasts and no weekend meals board option: deduct \$50* from above rates.

*Each semester.

Residence hall fees for the *summer sessions* are approximately as follows: four weeks — \$306.00; eight weeks — \$612.00. (These figures are based on double occupancy of rooms.) Halls to be used in a given summer will be designated later and exact fees determined later (see *Summer Session Bulletin* for specific details).

III. Other Fees

A. Application for Admission to the University	\$ 20.00
B. Applied Music (in addition to tuition)	
1. Private lessons (1/2 hour per week)	50.00
2. Private lessons (1 hour per week)	90.00
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)	64.00
E. Credit by Examination, University Courses (per course)	87.00
F. Deferred Tuition Payment (per semester)	10.00
G. Diploma Replacement	10.00
H. Doctoral Post Comprehensive Registration Fee (assessed if not otherwise registered)	70.00
I. Extension or Television Class (per semester hour)	
-Undergraduate	87.00
-Graduate	131.00

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-MBA.....	177.00
J. Lakeside Laboratory (per five weeks)	413.00
K. Late Registration Fee.....	10.00
L. Open Credit (per project)	174.00
M. Remedial Courses (minimum fee)	174.00
N. Restricted Enrollment Fee (per occurrence)	20.00
O. Replacement of ID Card.....	10.00
P. Returned Check Charge.....	10.00
Q. Student Class Schedule Replacement	1.00
R. Transcript of Academic Record	
1. One transcript.....	3.00
2. Multiple copies, same order—\$3 plus \$2 for each additional copy.	
3. Immediate service (per transcript in addition to above).....	2.00
4. FAX service	5.00
S. Writing Competency Examination (for students not registered)	87.00

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 not covered by financial aid 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 \$10 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 \$20 restricted enrollment fee will be assessed for each billing which remains past-due. Students placed on Restricted Enrollment status will not be permitted to pre-register or to receive academic records until this status has been lifted.

See pages 43-44 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 students. The office offers all federal student aid programs as well as a variety of scholarship assistance.

The Financial Aid Office, located in Gilchrist Hall, provides financial aid counseling for students throughout the year. Request a scholarship brochure and further information from the office.

Federal Student Aid Programs

File for financial aid with a SINGLEFILE Form, Financial Aid Form (FAF) or Family Financial Statement (FFS) (choose one), to

determine eligibility for a Pell Grant, Supplemental Educational Opportunity Grant (SEOG), Perkins Loan, Work Study, Stafford Loan or Supplemental Loan for Students (SLS). Students need to file for financial aid each year. We prefer the SINGLEFILE form, however, we will accept results from the Financial Aid Form (FAF) or the Family Financial Statement (FFS). Applying for a Parent Loan for Undergraduate Students (PLUS) does *not* require one of the above forms; however, it is recommended.

Qualifying for federal student aid requires enrollment of at least half time and admission in a degree or certificate program. Perkins Loans, SEOG and Work Study Funds are limited — not all students are able to receive these funds.

Pell Grants — These awards help undergraduates pay for their education while working on their first bachelors degree. Amounts range up to \$2,400, depending on need and enrollment status. A Pell Grant is not repayable.

Supplemental Education Opportunity Grants (SEOG) — This program targets students receiving a Pell Grant and having exceptional financial need. Awards range from \$200 to \$2,400 per academic year. An SEOG is not repayable.

Perkins Loan (formerly National Direct Student Loan - NDSL) — Perkins Loans awards are based on need and range from \$200 to \$1,500. Interest begins accruing 6 or 9 months after the borrower is no longer at least a half-time student. Repayment to the university is made in quarterly installments. Deferments are possible if a borrower returns to school.

Federal, State and UNI Work Study — These are programs for students with financial need who desire employment to help defray educational expenses. Both undergraduate and graduate students can qualify for work study. The minimum pay rate is \$4.90.

Stafford Loan (formerly Guaranteed Student Loan - GSL) — Based on financial eligibility, freshman or sophomore students may borrow up to \$2,625 for an academic year. Junior or 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. Repayment begins six months after the student ceases to be enrolled at least half-time.

Parent Loan for Undergraduate Student (PLUS) and Supplemental Loan for Students (SLS) — A parent of a dependent student or an independent student may be eligible for 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. Principle payments may be deferred and the interest may be either paid or capitalized if the student is enrolled full-time.

Satisfactory Progress

Duration of Eligibility and Minimum Credit Hours Completion Scale

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

*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 and Grants

UNI Grants — These institutional grants are awarded to students demonstrating financial need. Annual awards range from \$200 to \$2,400. To determine eligibility, a student needs to file a SINGLE-FILE Form, Financial Aid Form (FAF) or Family Financial Statement (FFS). Funds are limited.

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. These scholarships are also available to qualified undergraduate art majors. Interested students should contact the Department of Art.

Industrial Technology Tuition Scholarships are awarded annually to high school seniors who plan on majoring in one of the undergraduate programs offered in the Industrial Technology Department. These grants are awarded on the bases of ACT scores, grade point, rank in class, and high scores in the competitive exam and interview held in conjunction with the annual Math/Science/Technology Symposium. These grants provide tuition exemption for up to eight semesters for students maintaining a major in the Department of Industrial Technology and a minimum cumulative grade point average of 3.0. Interested students should contact the Department of Industrial Technology.

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 or contact the G.I. Bill representative in the Office of the Registrar at (319) 273-6801, University of Northern Iowa, Cedar Falls, IA 50614-0006.

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 can apply for a four-year Army ROTC scholarship (before December 1st) of their senior year. Winners are announced the following March.

A four-year scholarship will pay for all tuition and required educational fees and provide a subsistence allowance of up to \$1,000 a year for each of the four years the scholarship is in effect. 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 all three-year Army ROTC scholarships during January. Winners are announced the following summer.

A three-year scholarship will pay for all tuition and required educational fees; provide \$225 a semester for textbooks, supplies and equipment; and provide a subsistence allowance of up to \$1,000 a year for each of the three years the scholarship is in effect. Winning and accepting a three-year ROTC scholarship does not preclude accepting other scholarships.

c. Two-Year Army ROTC Scholarships. College sophomores can attend the Army ROTC Basic Camp at Fort Knox, Kentucky. While there, apply for and earn a Leadership Scholarship.

A two-year Basic Camp scholarship will pay for all tuition and required educational fees; provide \$225 a semester for textbooks, supplies and equipment; and provide a subsistence allowance of up to \$1,000 a year for each of the two years the scholarship is in effect. Winning and accepting a two-year ROTC scholarship does not preclude accepting other scholarships.

d. Two-Year Reserve Forces Duty Scholarships. Outstanding sophomores may apply on campus, reservists may apply on campus through their Army National Guard or Army Reserve unit. If selected, you will be required to enlist in the Army National Guard or Army Reserves for a period of eight years. You will fulfill your obligation in the Reserves *only*. If already in the Guard or Reserve, you must have at least six years of military service remaining or extend your enlistment.

A Reserve Forces Duty Scholarship will pay for all tuition and required educational fees; provide \$225 a semester for textbooks, supplies and equipment; and provide a subsistence allowance of up to \$1,000 a year for each of the two years the scholarship is in effect. Winning and accepting a two-year Reserve Forces Duty Scholarship does not preclude accepting other scholarships.

e. Additional Information. For more information about Army ROTC scholarships, write to the Department of Military Science, ATTN: Scholarship Officer, University of Northern Iowa, Cedar Falls, IA 50614-0142; come in person to the Old Auditorium Building (Room 37), UNI campus; or call the Scholarship Advisor at (319) 273-6337.

UNI 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, Mathematics, and Technology Symposium Awards are made to high school seniors ranking highest on examinations in the areas of biology, chemistry, computer science, industrial technology, 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.

College of Business Administration — (Specific requirements pertain to each of these awards. Contact the College of Business Administration or the individual Department before March 1 for application information.)

- Scholarships for graduate students: Day Dugan Scholarship; Irene Thompson Scholarship.
- Scholarships for undergraduate majors or pre-majors: Robert and Ruth Hill Memorial Scholarship; Merrill J. Oster Scholarship.
- Scholarships for undergraduates who have attended at least one semester at UNI and are admitted to the College of Business Administration, or Economic Majors with at least 45 credit hours: Alpha Boysen Stewart Scholarship; American Society for Quality Control Scholarship; IES Industries Business Scholarships; J. S. Latta Jr. Scholarship; Maytag Scholarship; Rolscreen Honors Scholarship; Irene Thompson Scholarship.
- Scholarships for Office Information Systems Majors: Kay Humphrey Memorial Scholarship.
- Scholarships for Accounting Majors: Arthur Andersen & Co. Scholarship; BDO Seidman Scholarship; J.T. Blanford Memorial Scholarship; Coopers & Lybrand Scholarship; John Deere Scholarship; Deloitte & Touche Scholarship; Ernst & Young Accounting Scholarship; Honeywell Corporation Accounting Scholarship; KPMG Peat, Marwick Accounting Scholarship; J. Michael McBride Scholarship; McGladrey Pullen Education Award; Mosebach & Griffith Scholarship; Jerry B. Paterson Accounting Scholarship; Price Waterhouse Scholarship; Neva

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Radell Scholarship; Mike Rod Memorial Scholarship.

6. Scholarships for Economics Majors (not available to freshmen): Charles Leavitt Economics Scholarship; F. Russell Glasener Economics Scholarship.

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 specialize in a discipline of their choice and must complete the objectives of the General Education requirements of the University. Presidential Scholars may substitute other courses for those within the University's General Education Program with the approval of the Presidential Scholars Board and the University Committee on General Education. Presidential Scholars are assigned an advisor from the Presidential Scholars Board as well as a major advisor 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 an 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. 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. Contact the Financial Aids Office for specific information.

UNI Parent's Association (UNIPA) Scholarship Program

Five scholarships in the form of tuition grants applied directly to the student's account are awarded annually. One \$500 scholarship is awarded to a student from each of the five undergraduate colleges. Selection is completed in spring; award realized following fall semester. Presidential and other full tuition and board scholarship winners are not eligible. 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

The UNI Foundation is the official channel through which gifts, both large and small, are given for the benefit of the University. Currently, assets of the Foundation total \$13.6 million. The generosity of alumni and friends of the University of Northern Iowa provides over 200 scholarships for eligible students. During the 1990-91 academic year, the Foundation provided scholarship assistance for 620 UNI students. Contact the dean of your college or the Office of Financial Aid for specific information on scholarships and selection criteria.

▼ Student Life

Mission Statement - Educational Student Services

Our mission is to promote a student-centered university characterized by high academic standards, enriched learning experiences, and stimulating student-faculty-staff interaction.

We value quality, integrity, caring, teamwork. These values are practiced through leadership and service to students, to each other, and to the university community.

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 is sent to the housing applicant upon receipt of the housing information card in the Department of Residence.

The 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 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 cancelled.

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 4,555 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 halls include Campbell, Hagemann, and Lawther. 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 unfurnished apartments 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; brunch and dinner only on Sunday. 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 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. Academic Advising Services coordinates the university-wide program. Academic Advising at Northern Iowa offers students the opportunity to individualize their educational experience with a faculty or staff member. Students are assigned to a faculty advisor in their major or to a professional advisor in Academic Advising Services if they have not made a decision about a major.

UNI prides itself in being a caring academic community which places a high value on students being active participants in their educational experience. Advisors can provide guidance to students entering the University, hear concerns of students, help students locate and use academic and career information and assist them in making decisions. Students are encouraged to see their advisors, but for the most part they are not required to do so. Through a wide range of advising resources students are expected to become informed consumers who are encouraged to make considered choices about their personal and educational lives. While it is the right of students to have helpful advisors, it is the responsibility of students to be informed.

Advising provided by Academic Advising Services is open to all students. 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.

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 UNI 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 to 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 UNI.

University Health Services

University Health Services provides comprehensive mental, physical health and wellness services to all students enrolled at the University of Northern Iowa. The spouse of a student is also eligible for counseling and health services upon payment of the optional spouse activity fee at the Controller's Office in Gilchrist Hall. Wellness services are available to students, employees, retirees and their families. Services are provided by a well qualified professional staff including licensed psychologists, physicians, nurses, health educators, counselors, a pharmacist and a laboratory/x-ray technician. Services include consultation, treatment and referral, and a full range of health promotion and wellness activities.

Student Health Center

The Student Health Center is located on the south side of 23rd Street next to the Schindler Education Center and provides outpatient medical services Monday through Friday when classes are in session. There are no evening or weekend clinic hours. The well equipped clinic includes 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 medication, injections, immunizations, x-rays, lab tests and other medical services. Charges may be paid in cash, billed to a student's account or insurance company. Referral to area physicians will be arranged for treatment requiring specialized care.

When the Health Center Clinic is closed, resident hall students may discuss a health problem with their Hall Coordinator or Resident Assistant. All Hall Coordinators and Resident Assistants have been trained by University Health Services to recognize symptoms including a need for first aid or possible medical attention. They can suggest appropriate arrangements to students who are ill or injured. Emergency coverage is available at any of the hospital emergency rooms in the Cedar Falls and Waterloo area.

The Student Health Center also houses the department's health promotion and substance abuse education programs. Activities include assessment of student health needs, responding to requests for programs and presentations, educating students in proper self-care, staff training, and managing the university's comprehensive alcohol and drug education program.

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 his/her parent's or spouse's insurance program. Information on the coverage and the cost of this insurance is available in the Student Health Center. International students are required to have health insurance as a condition of admission and should contact the International Services Office regarding appropriate coverage.

Counseling Center

The Counseling Center is located in the Student Services Center. 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 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 agencies. A close relationship is maintained with staff in the Health Center for students who require medication.
3. Coordination of services to students with disabilities.
4. Class or group presentations and individual consultation.

Counseling services are available to students without charge. Limited services are available on a fee basis to faculty, staff, and non-students. Interviews are confidential.

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

Wellness Promotion Services

Located in the Student Health Center, the Wellness promotion program includes a wide range of activities designed to enhance the health and well being of students, employees, retirees, and their families. Health assessment clinics, fitness activities and programs on a variety of health related topics are available on a fee basis or at no charge.

Placement and Career Services

The Office of Placement and Career Services is a centralized office providing three broad program areas of interest to students. Students and alumni are advised to be familiar with all programs and to participate in the services.

Career Services. Career Services provides resources and individual assistance for students and alumni with career-related questions and concerns. For those wanting help in deciding on a career direction, Career Services offers written and videotaped information on career options, occupation requirements, and employment trends, as well as career interest inventories and a computerized career guidance program. A credit-bearing course designed to help students make career decisions is also available. Job-seekers and students involved in cooperative education can find information on industries, employers, job openings, and the job search process. Professional counselors provide one-on-one consultation for those seeking personal assistance in making career-related decisions or using information available in the Career Services resource center.

Cooperative Education. The Co-op Program allows students to make the transition from college to the professional work world by gaining work experience before graduating. Benefits of the program include: Earning academic credit; field testing potential academic majors and/or careers; accumulating experience; developing communication and decision-making skills; improving prospects for employment after graduation; and earning money during work periods.

Placement Services. This area assists prospective graduates and alumni from all academic areas in securing positions in employment and/or graduate school in accordance with their qualifications and personal interests. Placement provides counseling and advising; posts job listings; participates actively in local, regional and national candidate referral services; conducts campus interviews and career fairs with school systems, graduate schools, companies, government agencies, and non-profit organizations; teaches job hunting skills; conducts mock interviews; and for teachers, provides credentials and a weekly vacancy bulletin.

Individuals are highly encouraged to register for placement services during their final academic year. There is a fee for some services.

International Services Office

Undergraduate and graduate students who come to UNI from countries throughout the world are served by a central office. Through the International Services Office, 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 International Services Director, who certifies the students' creden-

tials 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 International Services Director 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.

International Services assists academic departments and other divisions in applying to the Immigration and Naturalization Service for permission to employ non-immigrant aliens for temporary positions at the University of Northern Iowa.

For information concerning international/foreign admission, contact the International Services Office at (319) 273-6421.

Student Activities and Honors

Co-curricular 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 co-curricular 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. Among the groups offered are: Concert Chorale, Chamber Choir, Women's Chorus, Varsity Men's Glee Club, Basketball Pep Band, 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. All members of the university community are invited to attend productions in the Strayer-Wood and Bertha Martin Theatres.

Forensics - The forensics program, under the auspices of the Department of Communication and Theatre Arts, encourages participation of all interested students, both in debate and individual events regardless of major. The forensics squad participates in some thirty to thirty-five intercollegiate forensic meets per year on a regional and national basis. Participants may choose to enter debate or individual events. The latter includes public address, interpretation and acting events.

Intercollegiate Athletics - Various intercollegiate sports are available to both men and women at UNI. The university engages in intercollegiate athletic competition in a total of 19 sports. Men may participate in baseball, basketball, cross country, football, golf, swimming, tennis, indoor and outdoor track, and wrestling. Women also compete in basketball, cross country, golf, swimming, tennis, and indoor and outdoor track, as well as in softball and volleyball.

Campus Recreation - The division of Campus Recreation, under the auspices of the School of Health, Physical Education, and Leisure Services, offers an extensive intramural sports program, informal recreation opportunities and sponsors a number of sport 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.

Student Life

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 Student Activities Office in the lower level of Maucker Union.

Student Government - The student government associations include the Northern Iowa Student Government, the Residence Halls Association, the Interfraternity Council, Panhellenic, the Union Policy Board, the United Students of Iowa, and the individual residence hall senates.

Northern Iowa Student Government - The legislative branch of Student Government at UNI is the Student Senate. The executive members include the president, administrative vice-president, academic vice-president, and programming vice-president. A 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 Northern Iowa Student Government 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 twelve students and six nonstudents. The Board recommends policy and regulations for the operation of the Union, and coordinates the programming events in 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.

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 leadership skills 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 Students Activities Office in the lower level of Maucker Union.

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 Student Activities Office, Maucker Union.

Fraternities/Sororities - There are four social sororities and six 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 the Student Activities Office, which are located in the lower level of Maucker Union.

Religion - Information on specific religious organizations may be obtained in the Student Activities Office on the lower level of Maucker Union. The student at UNI may participate in 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.

Station KGRK - Station KGRK is the student managed and operated AM/FM station of the University of Northern Iowa. The station operates at 970 AM carrier current on campus and at 97.5 FM cable in the Cedar Falls/Waterloo area. KGRK broadcasts music, UNI sporting events, and campus news. The studios and offices of KGRK are located in the lower level of Maucker Union.

Student Publications - Three publications are written, illustrated and edited by students for campus-wide distribution. They are *The Northern Iowan* — the student newspaper distributed twice a week during the fall and spring and once a week during the summer session; *Old Gold* — the student yearbook, published annually; and *Draftings In ...*, the scholarly journal for undergraduate and graduate students.

Professional Performing Arts on Campus - The UNI Artists Series attracts internationally renowned performers from various fields of entertainment to campus for concerts, recitals, and dramatic productions. The Auditorium Series features soloists and groups who normally appeal to audiences with more diverse interests. The Russell Series (held in Russell Hall) presents concerts by distinguished chamber music ensembles. Student tickets for these series are available at a considerably reduced price.

In addition to the Artist Series, the UNI Entertainment Committee brings a variety of comedians, hypnotists, magic and other special events for the enjoyment of the UNI community.

▼ University Facilities and Educational Services

Facilities

The Donald O. Rod Library

Centrally located on campus, the Donald O. Rod Library is a modern, three story, 175,000 square foot building. The Library has a collection of more than 700,000 books and bound periodicals, and more than 3,000 current periodical and newspaper subscriptions. The library provides seating for 1,500 library users and has pleasant lounge areas, group studies, a graduate student study, and faculty studies.

Services offered include: reference assistance; UNISTAR, an automated system supporting an online public access catalog and automated circulation and acquisitions functions; CD-ROM indexes; online searching of bibliographic and text data bases; photo-copying (including color and self-service copiers); and coin-operated typewriters.

The circulating collection is in open stacks and shelved by the Library of Congress classification system. The reference collection includes resources in the humanities and social sciences, the natural sciences, business (including corporate annual reports), and those of general interest. The Documents & Maps collection includes 250,000 U.S. paper documents, more than 150,000 U.S. and Iowa documents on microfiche, and more than 35,000 maps. The Art & Music collection includes reference sources for those subject areas and has an extensive collection of phonorecordings, cassettes, and compact disks, as well as listening equipment. The Youth Collection contains a representative sample of fiction and non-fiction materials for K-12 students. Special Collections includes rare books, the University archives, and the American Fiction collection, and the (Senator Charles) Grassley Papers. The library also has a current collection of state, national, and international newspapers, a career collection, and a microform collection of more than 500,000 items which includes the ERIC documents microfiche. Many items not held in the library can be obtained from other libraries through the Interlibrary Loan Service.

The Library is open 106.5 hours per week during the spring and fall sessions and 81.5 hours per week during the summer session. Variations from regular schedules are posted in the main lobby of the Library and are published in the *Northern Iowan*. Further information and assistance can be obtained at the Reference Desk.

Maucker Union

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

General services include: a campus information center, check cashing service, meeting rooms, a billiards game room, and dining services which range from coffee to banquets and a full-service restaurant. 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 comedy club, 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 co-curricular activities, and are open to students, staff, and campus guests. Additionally, dining facilities are provided here for the residents of Bartlett and Lawther Halls.

The Georgian Lounge and the Ballroom, are located in the Commons. The Georgian Lounge is used for teas, receptions, and other special occasions; the Ballroom is a multi-purpose room used for banquets, movies, dances, and lectures.

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 presentation of six to eight temporary exhibitions per academic year and to the display of art works from the University of Northern Iowa permanent collections. The temporary exhibitions program and the selections from the University of Northern Iowa permanent collections provide gallery visitors with a wide range of contemporary and international 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 and general communities. These activities include concerts, lectures, seminars, and workshops. 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, arthropods, 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 includes important collections from Iowa, 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 programs from National Public Radio. KHKE, at 89.5 FM (also known as "H-89.5"), serves the greater Black Hawk County area with a comprehensive schedule of classical music and jazz. KHKE is also heard in Mason City-Clear Lake at 90.7 FM and on KRNI-AM 1010 kHz. The 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 advocacy and awareness programs 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.

Publications service supervises the development and production of more than 700 printed pieces 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 *Northern Iowan Today* is the Association's official publication of alumni and university news and is sent to all alumni four times a year. Other benefits of membership include use of the Donald O. Rod University Library, gift certificate to University Book and Supply, and members only newsletter.

Seventeen 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 Alumnae 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 SAA (Student Alumni Ambassadors). The establishment of SAA has been a 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 Ambassadors

The Northern Iowa Alumni Association is augmented by a student service organization called SAA - Student Alumni Ambassadors.

SAA members participate in a variety of social and educational functions as UNI and Alumni Association representatives both on and off campus. SAA volunteers serve as goodwill ambassadors and public relations liaisons for alumni and other special campus guests.

Programs include: The Senior Brunch, The Freshman Picnic, Finals Week Survival Kits, and other Special Occasion 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 in extending the usefulness of the university, providing that margin of excellence which is characteristic of a university of quality. As an additional service for alumni and friends, the Foundation staff will provide assistance in estate planning.

The Foundation is the official channel through which gifts, both large and small, are 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:
UNI Foundation
University of Northern Iowa
Cedar Falls, Iowa 50614-0155

Educational Services Information Systems and Computing Services

Information Systems and Computing Services (ISCS) provides computing, networking, and telephone support to the students, faculty, and staff of the University of Northern Iowa. The university's extensive computing resources are available through a developing network and complemented by effective and accessible documentation, training, and consulting services.

Most computing services are supplied to students at no charge. Exceptions are those services such as laser printing which are both costly and discretionary.

The Network: Primary access to the central academic computing resources is through a multi-layered campus datacommunication network. The network consists of an optical fiber backbone interconnecting major resources (mainframes, minicomputers, Local Area Network file servers and a Gandalf Starmaster data switch). Individual workstations may be connected to the Gandalf directly or via modems and telephone lines. The network provides access to all major UNI computing resources, as well as the on-line library catalog system, from points on and off campus.

The UNI high-speed network is configured as an Internet domain. UNI's Internet membership enables students, faculty, and staff at UNI to gain access to an extensive and rich variety of computing and information resources across the country and around the world.

Central Facilities: The principal central computing system for academic computing is a Digital Equipment Corporation (DEC) VAX 6000/410 running the VAX/VMS operating system. This state-of-the-art computer system, installed late in 1989, provides access to a rich collection of programming languages, editors, statistical programs, database software, and other applications from Digital Equipment Corporation and third-party vendors.

Auxiliary central support is provided by a DEC VAXstation 3100 coupled to the VAX 6000/410 via Ethernet and equipped with an optical disk reader. This system is used for documentation and software distribution from Digital Equipment Corporation and for selected batch applications.

Supplementary resources are provided by an AT&T 3B2/500 mini-computer running the System V UNIX operating system. This provides access to the UNIX operating environment for selected classes and to specialized instructional software such as Writer's Workbench.

A second 3B2/500 system is dedicated to an on-line campus information system which provides information about campus events and other matters of interest to the campus community. The current publication of the UNI Catalog and the UNI Policies and Procedures can also be accessed through this system.

IBM mainframe access is provided to selected classes via scheduled access to an appropriate subset of the resources on the university's administrative IBM ES9121/210.

Student Computer Centers: Over 200 microcomputers are available in Student Computer Centers located in the Library, Schindler Education Center, the Business Building, Commons, the Industrial Technology Center, Towers Center, and Redeker Center. The microcomputers in these centers are connected to local file servers via Novell networks, and these file servers are connected into the UNI network for access to all campus computing resources including the VAX, the Library Catalog, the Library's CD-ROM databases, and the UNI Information System.

Equipment in these centers consists predominantly of IBM PS/2s and compatible machines running MS-DOS, and Apple Macintosh systems. Apple II systems are also available in the College of Education Curriculum Laboratory, located in the Schindler Education Center. Laser printers are available in all of the centers and may be used at a modest charge.

The Student Computing Advisory Committee plays an active and meaningful role in recommending policies, priorities, and strategic plans for the Student Computer Centers and other student computing resources.

Special Facilities: Graphics capability of varying types is provided using IBM PS/2 systems and Apple Macintosh in the Wagner Student Computer Center, located in the Industrial Technology Center and Apple Macintosh systems in the Commons Student Computer Center.

An optical scanner (NCS 7008) is available for test scoring, survey tabulating, and other data entry from mark-sense forms.

UNI is an Affiliate Member of the National Center for Supercomputing Applications, located at the University of Illinois. This affiliate membership provides supercomputer access to students and faculty members whose academic pursuits require it.

Software: Programming languages available through the UNI network include Ada, APL, BASIC, C, COBOL, FORTRAN, LISP, Pascal, and MACRO.

Statistical packages include SPSS-X, SPSS-X Graphics, Minitab, SAS, SAS Graphics, and several microcomputer-based statistical packages.

Word Processing software includes WordPerfect, PC-Write, and a number of editors available on a variety of equipment from microcomputers to central systems.

Other software includes spreadsheets (Lotus 1-2-3), communication (KERMIT), database software, and a wealth of special-purpose and discipline-specific offerings.

Services: A Computer Hot Line (273-5555) is available during normal working hours for answering computer-related questions and assisting with the solution of problems. The Hot Line telephone is answered by machine at times when staff is not available.

Problems which cannot be answered immediately are referred to the ISCS professional staff; responses to questions are generally provided within one working day.

A comprehensive collection of documentation is available from a variety of sources, including the computers themselves, the center attendants, and the ISCS staff.

Resources permitting, ISCS provides assistance with configuring and purchasing microcomputer hardware. Special educational dis-

counts are available to students, faculty, and staff purchasing equipment for use in their university-related pursuits.

Hours of Operation: ISCS offices are open on the normal UNI schedule (8:00 AM to 5:00 PM Monday through Friday during the academic year and 7:30 AM to 4:30 PM Monday through Friday during the summer).

The main computer room (Room 19, Business Building) is open from 7:30 AM to Midnight Monday through Friday, from 10:00 AM to 4:00 PM Saturday, and from Noon to Midnight on Sunday. However, outside building doors are locked at 10:30 PM Monday through Friday.

The Library Student Computer Center is open on the same schedule as the Library.

Other Student Computer Centers have individual "core" hours of operation which are determined by location and use of the centers; these hours are extended as demand increases during the semester. Hours are posted on Infosys and at each Student Computer Center.

Departmental Facilities: Additional computing facilities are available for student use within Colleges and Departments. Information about resources and use policies may be obtained from the individual departments.

Instructional Resources and Technology Services

Instructional Resources and Technology Services, within the College of Education, is for teacher education students and faculty. Many of the services are also available for N/K-12 grade teachers and administrators. IRTS offers resources and technological services for the pursuit of curriculum and instructional development.

IRTS consists of four closely related areas: the Curriculum Laboratory; the Marshall Center One Room School; the NASA Regional Teacher Resource Center; and Technology Services.

The Curriculum Laboratory is located in Room 222 of the Schindler Education Center. Materials available in the Curriculum Laboratory include N/K-12 textbooks, curriculum guides, resource units, professional books, education journals, kits, games, and software. The Curriculum Laboratory provides group orientations, consultations, reference assistance, a reserve desk, bibliographies, newsletters, and new materials notices.

The Marshall Center One Room School is located adjacent to the Schindler Education Center and Student Health Services. It has been on campus since Fall 1989 and has been restored to its 1910 appearance. The school is available for N/K-12 grade students, the university community, and the general public. Staff will provide living history experiences for visitors by conducting 1910 style classes or the building may be used as a meeting site.

The NASA Regional Teacher Resource Center, in Schindler Education Center 222, houses a collection of videos, slides, audiocassettes, computer software, and lesson plans about NASA and aerospace education. Students, faculty, staff, Iowa teachers, and the general public may preview these materials in the center and make or request duplicates at minimal costs. Many of the items may be borrowed from Educational Media for on-campus use.

Technology Services includes the College of Education's electronic mail system CAUCUS, which provides an excellent communications tool for faculty and students. The Faculty Development Center provides state of the art technological equipment for faculty use, and the staff provides expertise to acquaint faculty with the hardware and software. Finally, an IBM microcomputer classroom, an Apple II microcomputer laboratory, and extensive instructional software collections are available for classes and individual students.

The Educational Media Center

The Educational Media Center (EMC) is a university-wide service department established to meet varied educational media and technology needs of students, faculty, and administrative staff. 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 six, closely related divisions: Audio-Visual Services; Graphic and Computer Imaging Services; Photographic, Slide and Multi-Image Services; Printed Course Materials; Television and Audio Services; and The Media Lab.

Audio-Visual Services is located in the Commons Building and is responsible for purchasing, circulating, maintaining, and managing university media software and equipment. AV Services provides a complement of audio-visual equipment in each instructional building and maintains a variety of media equipment available in the Commons for checkout. The university collection of media software (motion pictures, video tapes, video discs, filmstrips, audio tapes, recordings, and slides) is maintained in the Commons with facilities available for preview and use. Facilities also include a 48-carrel audio listening center for individual and group use. A microcomputer laboratory (primarily MacIntosh computers) with a laser printer and a collection of software is also available.

Graphic and Computer Imaging Services, located in Schindler Education Center 128, provides consultation, design, and production of a wide variety of media materials for instruction and communication purposes. Media materials produced include charts, graphs, diagrams, handouts, posters, booklets, displays, slide titles, television and computer graphics.

Photographic, Slide and Multi-Image Services is housed in Schindler Education Center 128 and provides consultation, design, and production of photographic prints, slides, slide series, and multi-image series.

Education Center lecture halls 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, films, slides and film-strips. Media utilization is scheduled through Audio-Visual Services.

Printed Course Materials is a service provided to academic departments for the design, printing, packaging and sale of printed course materials (including syllabi, handouts, readings, and self-instructional programs) and other media materials to students. This service is located on the third floor of the Commons.

Television and Audio Services, located in the basement of the Education Center building, is responsible for university-related television activities including selection and purchase of television equipment, distribution of locally produced programs, planning and production of video programming, video tape editing, duplication, video tape format changes, image enhancement, and electronic character generation. This service provides the university with a satellite downlink system for satellite programming and teleconferencing. The cable link for the origination and distribution of programming for the Cedar Falls/Waterloo cable television system and the Cedar Falls School System is also housed in this service area. Professional studio and location sound recording, mixing, editing, and duplication services are also available.

The Media Lab, located on the third floor of the Commons, provides facilities and equipment for students, faculty, and staff who want to produce their media materials or learn the operation of media equipment. Media supplies are available for purchase in the media store, and staff assistance is provided for the operation of media equipment.

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

The Educational Opportunity Programs and Special Community Services structure includes the following 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 200 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 counseling 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 the areas of counseling, academic advising, and financial assistance. Some graduate assistantships for EOP students are available through cooperation with academic departments of the university. In addition to actively recruiting students for the University of Northern Iowa graduate studies, the program provides information and assistance to EOP graduates of UNI who wish to take higher degrees at other institutions.

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.

The **Educational Opportunity Centers Program** is an educational academic and counseling program which promotes post-secondary education in communities with large populations of low-income and first generation adults who are often unaware of education and career opportunities. Professional career and education counselors assist eligible adults to select a post-secondary institution or training program suited to their interests; assist clients with the completion of admission and financial aid applications; provide academic development workshops (study skills, test taking, writing and basic reading and math skills). The Educational Opportunity Centers Program also coordinates job and college fairs, media promotion of education which provides education and career information for their communities. The Educational Opportunity Centers Program is located in the Center for Urban Education, 715 East Fourth Street, Waterloo, IA.

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, UNI, Cedar Falls, IA 50614
- Graduate EOP, EMCEC, UNI, Cedar Falls, IA 50614
- Upward Bound, Student Services Center, UNI, Cedar Falls, IA 50614
- Upward Bound - Math Science, Student Services Center, UNI, Cedar Falls, IA 50614
- Educational Talent Search, 715 East Fourth Street, Waterloo, IA 50703
- EOC UNI-CUE, 715 East Fourth Street, Waterloo, IA 50703

Inquiries not related to any specific area should be directed to the Associate 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 an educational program for a diverse 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 UNI 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 communicative disorders, 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 89 to 124. 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 UNI, and details of this unique degree program are given on pages 37 and 38. 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 by 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 enrolled in 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, 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.

Degree Requirements/ Bachelor of Arts

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, design, family and consumer sciences, 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 colleges for a total of 30 hours. The student's program will be planned in consultation with the Individual Studies Program Administrator.
- 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.

This degree program is not recommended for students intending to work in nursing education at the collegiate level, in such areas as public health, or psychiatric nursing, nor those for whom the primary intention is graduate work in nursing.

4. Joint Programs

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

Cytotechnology

Dentistry

Hospital and Health Administration

Medicine

Medical Technology

Physical Therapy

A student shall complete at UNI all the requirements in General Education (47 semester hours) and the requirements for a major in Science and have a total of at least 92 semester hours at UNI. The professional courses transferred must 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 UNI degree requirements. The student will work with a pre-professional advisor 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 92 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 92 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 program guides 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 UNI. Students who complete the two-year sequence with at least a 2.20 grade point average on all college work undertaken may apply for admission to the College of Nursing, University of Iowa, for five academic semesters of study in the nursing major. Upon completion of the major, graduates may write the examination for Registered Nurse licensure.

At the University of Northern Iowa students complete two years of basic studies. These courses include work in

general education along with introductory and basic science courses. Program details are available from the Dean of the College of Natural Sciences.

During the first semester of the sophomore year students who have earned the required 2.20 grade point average will submit an application to the University of 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. **Cooperative Nursing Program with the Allen College of Nursing.** The University of Northern Iowa offers the general education component of the Bachelor of Science in Nursing Degree offered by Allen College of Nursing.
- d. **Three-year Program in Medical Technology.** The University of Northern Iowa cooperates with Covenant Medical Center located in Waterloo, Iowa, to offer the first three years of work; Covenant Medical Center offers the fourth year. Applications should be made to the Registrar of the university and a copy of the combined program requested.
- e. **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.
- f. **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.
- 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. The student will be assigned to an advisor who is familiar with the type of program being sought. Before seeing his or her advisor for the first time, the student should secure a current copy of the catalog of the school to which the transfer is planned.

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 service obligation (except for scholarship students). The Basic Course teaches the student about leadership, survival, and basic soldier skills. There is no prerequisite that the basic courses be taken in sequence, however, a student must complete the basic course or the equivalent (see paragraph b. below), before progressing

into the advanced course.

The Advanced Course is usually taken during the junior and senior years. Students enrolled and contracted in the Advanced Course will incur a military obligation (either active or reserve). The Advanced Course teaches the student about small unit tactics, leadership and management of military organizations and resources and military law. The Department of the Army will pay all contracted cadets up to \$1,000 a year during the last two years of the program.

- b. **Accelerated Program.** The accelerated program is designed specifically to fill the needs of the students who did not take Army ROTC during the first two years. Placement credit for the basic course may be obtained in several ways. Three most common methods are prior military service, enlisted basic training, or successful completion of a six-week summer basic ROTC camp.
- c. **The Simultaneous Membership Program.** The Simultaneous Membership Program (SMP) allows contracted cadets to be members of the Iowa Army National Guard or the Army Reserve and Army ROTC simultaneously.
ROTC SMP cadets are paid at the rate of a Sergeant (E-5) for their one weekend a month training assemblies, plus up to \$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 cadets also qualify for the Student Loan Repayment Program.
- d. **ROTC Scholarships.** U.S. Army ROTC three-, and four-year scholarships are available. They cover all tuition and required educational fees at UNI, and provide \$225 a semester for textbooks, supplies and equipment.

Army ROTC scholarships also provide a subsistence allowance of up to \$1,000 for each school year that the scholarships are in effect. Winning and accepting an ROTC scholarship does not preclude accepting other scholarships. Additional ROTC scholarship information is contained on page 19 of this bulletin.

- e. **Military Science Minor.** The Department offers a minor in Military Science. Requirements for the minor are 24-30 hours and include Military Science courses as well as elective courses. More information is contained on page 76 of this bulletin.
- f. **Additional Information.** Additional information regarding U.S. Army ROTC program is contained under the section titled Military Science, on page 76 of this bulletin. The specific courses offered by the Department of Military Science are listed under the Department of Military Science on page 127. For additional information, write to the University of Northern Iowa, Department of Military Science, Cedar Falls, IA 50614-0142; come by in person to the Old Auditorium Building (Room 37), UNI campus; or call the Student Advisor at (319) 273-6337.

Bachelor of Arts — Liberal Arts Curricula

All candidates on this program will complete the following pattern:

	Semester Hours
General Education	Minimum 47
Major, Minor, Foreign Language, Elective	77
Minimum	124

Not later than the beginning of the sophomore year each student enrolled on this program will choose one major from the list below. A knowledge of a foreign language is required or recommended for several majors. Specific information regarding the foreign language requirements will be found with the departmental listings. It is recommended that the student include in his or her electives a course

Degree Requirements/ Bachelor of Arts

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
Clothing and Textiles: Fashion Merchandising
Communication and Theatre Arts
Communications/Public Relations
Communications/Broadcast
Communicative Disorders
Community Health Education
Computer Information Systems
Computer Science
Criminology
Design and Human Environment
Earth Science
Economics
English
European Studies
Family Services
Finance
French
General Industry and Technology
General Studies
General Studies for Registered Nurses
Geography

Geology
German
Graphic Communications
History
Humanities
Individual Studies
Latin American Studies
Leisure Services
Management
Management Information Systems
Marketing
Mathematics—A
Mathematics for Modeling—B
Mathematics—C
Music
Natural History Interpretation
Nutrition and Food Science
Philosophy
Philosophy and Religion
Physics
Political Science
Psychology
Public Administration
Religion
Russian
Russian/Soviet Area Studies
Science
Social Work
Sociology
Spanish
Teaching English to Speakers of Other Languages (TESOL)
Theatre Arts
Therapeutic Recreation

Minors

Anthropology
Art
Asian Studies
Astronomy
Athletic Training
Audio Recording Technology
Biology
Business—Accounting
Business Communications
Chemistry
Coaching
Communication and Theatre Arts
Communication and Theatre Arts—Interpretive Communication
Community Health Education
Comparative Literature
Computer Information Systems
Computer Science
Criminology
Dance
Design, Family and Consumer Sciences
Earth Science
Economics
English
Environmental Perceptions
Family Life Education
French

General Business Concepts
General Industry and Technology
Geography
Geology
German
Graphic Communications
History
Humanities
International Affairs
Jazz Studies
Journalism
Mathematics
Media
Military Science
Music
Philosophy
Physics
Political Science
Portugese
Psychology
Religion
Russian
Russian/Soviet Area Studies
Sociology
Spanish
Teaching English to Speakers of Other Languages (TESOL)
Women's Studies
Writing

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.

	Semester Hours
General education.....	Minimum 47
Professional Education Requirement.....	32
Major, minor, electives	<u>51</u>
	130

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

	Semester Hours
General education.....	Minimum 47
Professional Education Requirement.....	33
Major requirements	33
Concentration area and electives	<u>17-26</u>
	130-139

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

	Semester Hours
General education.....	Minimum 47
Professional Education Requirement.....	33
Major requirements	30
Other requirements and electives	<u>20</u>
	130

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 I.

	Semester Hours
22:150 Mainstreaming the Exceptional Child in Regular Classroom Settings	2
24:020 Educational Media.....	2

Level I

20:017 Field Experience: Exploring Teaching.....	1
20:030 Dynamics of Human Development.....	3

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
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Student Teaching

28:070 Human Relations: Awareness and Applications Co-requisite - 28:1xx	3
28:1xx Teaching (Course number denotes area in which experience is gained: 28:132, 134, 135, 137, 138, 139, 140, 250) Co-requisite - 28:070	<u>12</u>
	32

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 fulfill any additional requirements as prescribed by the Council on Teacher Education. 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. Under exceptional circumstances, provisional admission may be granted to students, but all requirements for full admission are to be completed by the end of Level II. Fee payments for tests, registration procedures, and test date information are available by contacting Academic Advising Services, Student Services Center 125, UNI (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 advisor 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. FULL admission to the teacher education program
- b. A cumulative GPA of 2.50 or higher on work at all colleges and universities.
- c. A UNI GPA of 2.50 or higher
- d. A 2.50 GPA in your academic department or department approval
- e. A GPA of 2.50 or higher in courses completed in the Professional Educational Program
- f. Completed all methods courses listed as prerequisites for student teaching with a grade of C (2.00) or higher.

Final student teacher assignment is based upon fulfillment of all established requirements and availability of placement.

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, that culminate 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 professional education program and through individual departments offering teaching majors. 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 which is 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 for student teaching, evaluated on a credit/no-credit/withdrawal system, and three (3) hours of graded credit for Human Relations. (See page 46.) Interinstitutional student teachers who enroll at UNI, including those on the Regents Universities Student Exchange Program, may be evaluated on a graded basis (e.g., A, B, C, D, F) upon written request at the time of application from the Registrar of the home institution. Students are required to enroll in 28:070 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
Mathematics

Middle School/Junior High
Education
Music
Physical Education
Physics
Political Science
Psychology
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

Degree Requirements/ Bachelors of Arts/Fine Arts/Music

Minors

Anthropology
Art
Art (K-6)
Basic Science (K-6)
Biology
Business
Chemistry
Coaching
Communication and Theatre Arts
Communication and Theatre Arts (K-6)
Computer Science
Early Childhood
Early Childhood Special Education
Earth Science (K-6)
Economics
Elementary School Media Specialist (K-6)
English
English/Language Arts (K-6)
French
Geography

German
Health Education
History
History (K-6)
Journalism
Library Science
Mathematics
Mathematics (K-6)
Music
Physical Education—Elementary Teaching
Physics
Political Science
Psychology
Reading Education (K-6)
Russian
Secondary Reading
Social Studies (K-6)
Sociology
Spanish
Special Education
Teaching English to Speakers of Other Languages
Technology Education

To be recommended for teaching licensure in Iowa, a student must satisfactorily complete the major and/or minor and the teacher education requirements, have an overall GPA of 2.50 and a cumulative UNI GPA of 2.50, and pass exit requirements as may be prescribed by the Council on Teacher Education. A student not meeting these requirements may graduate but will not receive recommendation for licensure.

Exit tests may be prescribed by the Council on Teacher Education or by the College of Education. The National Teacher Examination is now required to be taken by teacher education graduates to meet licensure requirements in some states. (It is **not** required in the State of Iowa.) The NTE will be given to students selecting that option. Fee payments for all tests, registration procedures, and test date information are available by contacting Academic Advising Services, Student Services Center 125, UNI (telephone: 319-273-6023).

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 130 semester hours is required for the degree. The BFA with a major in Art is an extended program usually requiring more than 130 semester hours. The Art major is designed to provide professional career training in the following studio areas: ceramics, drawing, graphic design, jewelry/metalwork, painting, papermaking, photography, printmaking, sculpture. 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:

Art Major	Semester Hours
General Education.....	47
Major Requirements.....	86
General Electives.....	3
	136

Music Theatre Major

Semester Hours

General Education.....	44
Major Requirements.....	84
General Electives.....	2
	130

The Bachelor of Fine Arts degree in Art is a highly specialized program which provides strong emphasis on work in professional career training. Students are required to pass a portfolio review before they are formally admitted to the Bachelor of Fine Arts Program in the Department of Art. Candidates for this degree are also required to present an exhibition of their creative works demonstrating competency in the studio arts in their senior year. (See Department of Art, page 50, for detailed information about this program.)

The Bachelor of Fine Arts degree in Art does not provide for certification to teach; additional hours are necessary to meet certification requirements.

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

Music core:.....	63 hours
Theatre core:.....	21 hours
Total:.....	84 hours

Participation in a performance organization and/or opera/music theatre classes is required of all Music Theatre majors every semester in residence.

The approval of the faculty, undergraduate coordinator in music, and the Director of the School of Music must be secured before a student is admitted formally to this degree program. Students pursuing a music curriculum should undertake a common core of required courses during the freshman year. During the second semester of the freshman year an extensive evaluation of each music major will be conducted. Transfer students will be admitted conditionally to the department, and after one semester in residence, may be admitted formally to a program of study.

Upon completion of specific requirements of the Music Education major under the Bachelor of Music degree, the student could qualify for certification to teach. (See School of Music, page 78, for additional information.)

Majors

Art
Music Theatre

Bachelor of Music Degree

Majors in this degree program have the choice of an educational major or two professional majors. 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, is a professional program designed to prepare students for careers as artists-performers or composers, or for entrance to graduate schools where further excellence in a performance area might be pursued. Students earning the Bachelor of Music degree are prepared as performers, college teachers, and in all areas where a high degree of music or performing skill is required.

Bachelor of Music Degree Curricula

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

	Semester Hours
General Education.....	41-44
Music requirements (applied, theory, history and literature, conducting, ensembles, recital, composition, electives).....	66-84
General electives*.....	6-25
	130*

The following majors are offered on this degree program:

Music Education (Teaching) — 66 hours
Performance (Voice, Piano, Organ, Band-Orchestral
Instruments) — 80 hours

*Music Education majors must also complete the Professional Education Requirements (see page 34). With approved substitutions the minimum semester-hour requirements total 134 hours. The Music Education major carries certification to teach in 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.

(See the School of Music, page 78, for additional information.)

Majors

Music Education
Performance

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, Dietetics, Electro-Mechanical Systems, Geology, and Physics.

Requirements for the majors in Applied Physics, Biology, Chemistry, Dietetics, 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 result in the completion of a written report. The major department must certify to the Registrar that the research requirement has been met before the degree is granted.

Note: For the Dietetics major, a bachelor's degree in an ADA (American Dietetics Association) approved program qualifies the student for an internship *following* completion of the degree. After internship is completed, the individual is qualified to sit for the registration exam.

3. The completion of the General Education requirements selected from courses included in the six General Education categories.

Since this degree assumes a higher degree of concentration in subject matter, a major leading to this degree will ordinarily require at least eight 100-level semester hours of credit more than an identically named major leading to a Bachelor of Arts degree.

Majors

Applied Physics
Biology
Chemistry
Dietetics
Electro-Mechanical Systems
Geology
Physics

Bachelor of Technology

This degree has two program areas that provide a choice of majors: Construction Management, and Manufacturing Technology.

A. Construction Management Major — 130 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. Manufacturing Technology Major — 130 hours

This program has three areas of concentration: Automation and Production, Computer-aided Drafting and Design, and Metal Casting. This major is designed to prepare persons for technical managerial or supervisory positions in industrial firms. Graduates are employed in industry areas such as: manufacturing automation, design and development, foundry engineering management, safety, quality control/assurance, production management, CAD specialist, manufacturing engineering, training, technical sales, product distribution and field service.

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 (page 69). Majors offered under this degree are:

Construction Management
Manufacturing Technology

The General Education program of 47 semester hours is required on all majors under this degree.

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 Management — 130 hours
B. Manufacturing Technology — 130 hours

Majors

Construction Management
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, with each of the universities offering the degree with the same curriculum requirements.

Degree Requirements/ Bachelor of Liberal Studies/General Education

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 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 without a traditional major 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: Each student entering the program must have earned either:

- 1) an Associate of Arts degree from an accredited, two-year college, or
- 2) at least 62 semester hours (93 quarter hours) of college credit acceptable toward graduation at one of the Iowa Regents universities, with a cumulative grade point average of at least 2.00.

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 in courses 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 — Requirements are those specified as Group Requirements of the College of Sciences and Humanities at Iowa State University, General Education at the University of Northern Iowa, and Basic Skills and Core Courses of the College of Liberal Arts at the University of Iowa.)

Program Distribution Requirements: To insure sufficient breadth of study, each student's program must include, in addition to the credit used to fulfill the general education requirements previously stated, a minimum of 12 semester hours (18 quarter hours) of credit in each of three (3) areas selected from the following list. Of the total 36 semester hours (54 quarter hours) of credit applied to fulfill this requirement, 24 semester hours (36 quarter hours) must be in upper-level credits as defined by the institution in which the courses are taken, with at least six (6) semester hours (9 quarter hours) of upper-level credits in each of the three areas chosen.

- a) Humanities
- b) Communications and Arts
- c) Natural Sciences and Mathematics
- d) Social Sciences
- e) Professional Fields (such as Business, Design, Family and Consumer Sciences, Education) as approved by the degree-granting institution.

The same credits may not be used to fulfill the general education requirements and also the distribution requirements stated above.

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

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

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

Change of Degree Program

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

General Education Program 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 UNI prior to fall 1994, 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 Russia/Soviet Union (3 hrs.)	
68:122 Japan (3 hrs.)	
68:124 China (3 hrs.)	
68:125 India (3 hrs.)	
68:127 Middle East (3 hrs.)	
68:128 Africa (3 hrs.)	
68:132/99:132 Native North America (3 hrs.)	
68:137/99:137 Native Central and South America (3 hrs.)	
68:070/96:070 Latin America (3 hrs.)	

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

- A. Fine Arts (3 hours required)**
(*Bachelor of Music Degree majors in Music Education may substitute 59:011, History of Music II, for 52:020 or 52:030.*)
- 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. Design, Family and Consumer Sciences 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 or 4 hrs.)*
- 87:021 Elements of Weather (3 hrs.)
- 87:032 Life Through Time (3 hrs.)
- 97:026 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.)
- 97:040 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)

- 62:005 Introduction to College Writing (3 hrs.)

B. Speaking and Listening (3 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 UNI prior to fall 1994, 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 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 from 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.

Degree Requirements/ Program Certificates/Graduation Requirements

Program Certificates

The University of Northern Iowa makes available, in addition to traditional programs, the opportunity for students to earn Program Certificates. Program Certificates provide an 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 Administration and Counseling

Advanced Studies Certificate

Department of Geography

Program Certificate in Cartography and Geographic Information Systems

School of Health, Physical Education, and Leisure Services

Youth Agency Administration Program Certificate

Department of Management

International Business Certificate

Training and Development in Business Certificate

Department of Modern Languages

Bilingual Program Certificate in Chinese

Bilingual Program Certificate in French

Bilingual Program Certificate in German

Bilingual Program Certificate in Portuguese

Bilingual Program Certificate in Russian

Bilingual Program Certificate in Spanish

International Commerce Certificate

Latin American Studies Certificate

Translation and Interpretation (All Languages) Certificate

Department of Psychology

Gerontology Program Certificate

Department of Social Work

Social Work

Substance Abuse Counseling Certificate

Department of Sociology and Anthropology

Skills in Social Research Certificate

Department of Special Education

Multicategorical Resource Teaching, K-6

Multicategorical Resource Teaching, 7-12

College of Humanities and Fine Arts

Studies in Leadership Development

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 93, 117, 119 and 124 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 non-residence credit.
4. The last semester or full summer session before graduation spent in residence at this university.

B. Scholarship

1. A student seeking the bachelor's degree with licensure 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 2.50 to be recommended for graduation. The student must also achieve a cumulative grade index of 2.50 on all work attempted at the University of Northern Iowa.
2. A student seeking the bachelor's degree (without licensure) 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 UNI with or after the 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 UNI who graduated from high school in 1989 or thereafter 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. Not more than twelve (12) hours of credit in student teaching may be used toward the hours required for graduation.

3. While a student must make application for student teaching during the spring semester for the following academic year, student teaching assignments are made at the time of admission to teacher education. The application to student teach is not an assignment to a particular semester. Transfer students must complete one full semester in residence before being approved for student teaching. Student teaching is not offered during the summer session.

Teaching Licensure

Teaching licenses are issued by state departments of education and are valid only in the state of issue. A college or university recommendation that a license be issued is required.

Students in the teaching program must meet requirements for an Iowa teaching license if they are to be recommended for licensure from the University of Northern Iowa. At graduation they are eligible for the Provisional License, valid for a period of two years for the kind of service indicated by the endorsement on the license; e.g., elementary teaching, secondary teaching, teaching a special subject such as art or music. The student can usually secure appropriate licensure in other states by making proper application and fulfilling any additional requirements.

In addition to holding a license 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 licensure 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.

The State of 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 50614-0006.

**Hours of Credit Needed to
Renew or Reinstate a License**

Renewal and reinstatement requirements are established by the Iowa State Board of Educational Examiners and are subject to change by this body at any time. The Bureau of Practitioner Preparation and Licensure of the Department of Education distributes information concerning all changes in licensure 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

Board of Educational Examiners
Bureau of Practitioner Preparation and Licensure
Grimes State Office Building
Des Moines, Iowa 50319

The Placement Center

Registration with the Placement Center within the Office of Placement and Career Services is strongly recommended for all individuals who expect to graduate from the University of Northern Iowa. Registration with and use of Placement is appropriate for all post-graduation plans. Information may be received at the office located in Room 19 of the Student Services Center.

Graduate Curricula

The University of Northern Iowa offers ten graduate degrees:

A. Master of Arts — a minimum of 30 semester hours:

Majors	Physics Education
Art	Political Science
Audiology	Psychology, General
Biology	Science
Chemistry	Science Education
Communication and Theatre Arts	Science Education for Elementary
Communications and Training	Schools (K-6)
Technology	Social Science
Computer Science Education	Sociology
Counseling	Spanish
Earth Science	Speech-Language Pathology
English	Teaching English to Speakers of
French	Other Languages (TESOL)
Geography	Technology
German	TESOL/Modern Languages
Health Education	Translation and Interpretation -
History	Spanish
Leisure Services—Youth/Human	Two Languages: French/German,
Service Agency Administration	Spanish/French,
Library Science	German/Spanish
Mathematics	
Mathematics for Elementary and	
Middle Schools (K-9)	
Music	
Physical Education	

B. Master of Arts in Education — a minimum of 30 semester hours.

Majors	Elementary Reading and
College/University Student	Language Arts
Services	General Educational Psychology
Computer Applications in	Middle School/Junior High
Education	School Education
Early Childhood Education	Reading Education
Education of the Gifted	School Counseling
Educational Technology	Secondary Principalship
Elementary Education	Secondary Reading
Elementary Principalship	Special Education
	Teaching

Degree Requirements/ Graduate Curricula

C. Master of Business Administration — a minimum of 33 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. Master of Public Policy — a minimum of 45 semester hours.

G. Specialist — a minimum of 30 semester hours beyond the master's degree.

Major

Science Education

H. Specialist in Education — a minimum of 30 semester hours beyond the master's degree.

Majors

School Psychology

Special Education:

Administration Emphasis

Curriculum Consultant Emphasis

I. Doctor of Education — a minimum of 60 semester hours beyond the master's degree.

J. Doctor of Industrial Technology — a minimum of 64 semester hours beyond the master's degree.

▼ Academic Regulations

Academic Program: Student Load

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

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
All Other Undergraduates.....	18
Graduate Students.....	15

Undergraduate students who wish to register for an overload must complete a Student Request Form with their cumulative UNI grade point average indicated and submit it to their advisor and to the Registrar's Office for approval prior to registration. Graduate students should submit the form to their advisors 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 GPA or above at UNI will usually be required for consideration of an overload request.

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 advisor and to the Registrar's Office.

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, two (2) hours.

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

Classification of Students

	Earned Semester Hours
Freshman	less than 30
Sophomore	30-59
Junior	60-89
Senior	90 and over

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 four years of academic work. When the major is declared, the student is assigned an advisor 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 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 advisor, 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 advisor, 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

Academic Regulations

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.)

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

*Weeks are defined as five work days. The first week begins with the day instruction at the university begins.

**Days are work days. Day count begins with the day summer session instruction begins. (See date in *Summer Schedule of Classes*.)

No refund for two- or three-week sessions.

Withdrawal Procedure

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

A student who has registered 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. A fee of \$10.00 is charged to replace the plastic ID card.

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.

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.

Instructors will notify the Registrar in case a student's attendance is such that her/his membership in a class is in doubt.

Course Credit Expectation

An academic semester contains fifteen weeks (approximately 75 days) of instruction. Students enrolled in courses whose mode of instruction is lectural/discussion based should expect to have fifteen hours of class contact over the length of the semester for each hour of credit available. Students enrolled in courses whose mode of instruction is activity based should expect to have thirty hours of class contact over the length of the semester for each hour of credit available. Students enrolled in courses offered on a shorter term basis should expect their class contact to be proportionately increased to be comparable with semester long course expectations.

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 incompleting course is a prerequisite.

Work reported as *Incomplete* for undergraduate students 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, is for a period of up to another six months as designated by the instructor.

Work reported as *Incomplete* for graduate students must be completed by the end of the sixth week of the next fall/spring semester. Work reported *Incomplete* in the summer session must be completed by the end of the sixth week of the next fall semester. The exact length of time to remove the incomplete within the above guidelines, is set by agreement between the instructor and the student. If the work reported as incomplete is not made up by the deadline noted above, it is automatically entered as a *Failure* on the student's record. However, if for sufficient cause an *Incomplete* cannot be removed by the agreed upon date, a request for an extension of the time may be made to the instructor of the course with the approval of the Graduate Dean also required.

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 Schedule of Classes for each session), F (Failure) shall be reported unless for unusual circumstances specific permission is given to report otherwise.

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

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

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

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

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 UNI will be warned.

Probation: Any student who is deficient from six through eleven grade points for a 2.00 cumulative index at UNI will be placed on probation. No entry of this is made on the student's permanent record.

Suspension: A student who at the end of any semester or summer session is twelve or more grade points deficient of a 2.00 grade index at UNI or in combination with his or her transfer grade index will be suspended. An entry of this action is made on the student's permanent record.

The university has very generous provisions for a student to drop courses during a semester, or to withdraw from school without serious academic penalties. However, there are times when repeated withdrawals or dropping of courses may raise questions as to the serious intent of the students, and they may be suspended.

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

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

Dean's List

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

Graduation with Honors

Three levels 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.

- Those whose grade index on the basis of work at this university is 3.75 or higher are awarded *Highest Honors*.
- Those whose grade index is 3.50 or higher, but less than 3.75 are awarded *High Honors*.
- Those whose grade index is 3.25 or higher, but less than 3.50 are awarded *Honors*.

The names of students receiving honors are identified in the commencement list with a footnote explanation.

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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.
9. The Credit/No Credit system may not be used with Credit by Examination, Extension, or Correspondence courses.
10. Change of registration in a course to or from a non-graded basis may not be made after five class days beyond midterm in a full, academic-year semester, or after the mid-point in the duration of a course taught in a period less than a full, academic-year semester. Only one such change of registration may be made per course.
A graduate student may include up to three credit hours of non-graded graduate course work in the program of study with the approval of the department.
11. The Credit/No Credit grading system may not be used in Presidential Scholars Seminars nor for the Presidential Scholars Thesis/Project credit.

Open Credit System

This type of undergraduate credit is designed for special projects such as a paper, experiment, work of art, or portfolio assessment of prior learning. The experience upon which the project is based may have been completed at any previous time; however, the student must be registered for credit at this University during the semester "open credit" is requested and open credit will be recorded only after the student has satisfactorily completed 12 hours of credit at this institution.

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

The number of open credit hours assigned to a project will reflect the academic evaluation of the project; credit will be awarded for work judged to be of at least C level quality. No letter grades are

given. The range of credit is from 0 to 6 hours per project. A student may apply a maximum of 18 hours of open credit toward graduation requirements. Open credit is normally elective but, upon the recommendation of the ad hoc committee, it may be approved for requirements in General Education with the approval of the Office of Academic Affairs or for major credit with departmental approval.

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

Cooperative Education

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

Participation in the program is optional on the part of students and selective on the part of the university. Students may qualify for enrollment when all of the following conditions are met:

- A. Student has sophomore, junior, or senior status.
- B. Student has grade point average of 2.5 based upon at least one completed semester of course work at UNI. Some departments may require a higher minimum grade point average than 2.5.
- C. A UNI faculty member approves all arrangements, including projects to be completed, and agrees to supervise and evaluate the students' learning experience.
- D. Approval is obtained from the academic department head granting credit.
- E. Co-op staff can develop a field placement opportunity and arrange for employer's supervision.

Placements can occur during the fall, spring, or summer terms. Students are encouraged to contact the Co-op Office during their freshman year to insure proper class scheduling.

Correspondence, Off-Campus and Telecourse Credit

Correspondence study, off-campus courses and telecourses are the methods by which non-resident credit may be earned at UNI. Not more than 32 semester hours of credit required for a bachelor's degree may be earned through non-resident credit.

Any UNI student will be permitted to enroll for correspondence courses if he/she has a grade point of at least 2.00. A student may not take by correspondence study any course which was previously failed. Since correspondence courses do not follow the regular semester time schedule, a student may enroll at any time of the year. However, a student must have special permission from the Office of the Registrar to enroll in a correspondence course while currently enrolled for regular courses on campus if the correspondence course causes an overload of hours. Credit for correspondence, radio, and telecourses may not ordinarily be applied toward a graduate degree program.

There is no distinction between campus and off-campus credit in meeting degree requirements except for the 32-hour limit as stated above. Subject to Graduate College regulations, credit from off-campus courses may be applied to graduate programs if the courses are appropriate to the student's program needs and are approved by the student's advisor and department head.

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 40.

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 reduced 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 pages 7-8 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 a writing competency examination.

College Level Examination Program (CLEP)

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

Five General Examinations are given: *English Composition with Essay, Humanities, Mathematics, Natural Sciences, and Social 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 in four of the general tests earns credit; in mathematics, a 97 percentile is required) may be applied to general education requirements at UNI. CLEP tests are usually taken at the time of first registration, and must be completed before registering for general education courses in subject areas to which the tests apply.

Subject Examinations are end-of-course tests developed for widely taught, undergraduate courses. Percentile ranks for the tests compare an individual's knowledge of the subject with scores received by regularly enrolled students who have just completed an equivalent course. The minimum achievement level for credit on the Subject Examinations is the 50th percentile using these norms. A list of subject courses for which CLEP examinations may be taken at UNI is available from the Office of Admissions or Academic Advising Services. Students should expect a delay of at least four weeks between the time of testing and receipt of scores.

Any CLEP test may only be attempted once. For limitations on the total amount of credit earned by examination, including CLEP, which may be applied toward graduation degree requirements, see page 40.

Credit established by CLEP at an institution participating in the Iowa Public College/University CLEP Agreement will be accepted in

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transfer at full value when terms of the agreement are met.

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

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

A fee of \$38 is charged for each examination. Fee payment, registration procedures, and test date information are available by contacting Academic Advising Services, Student Services Center, UNI (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. UNI grants college credits in art, biology, chemistry, computer science, economics, English, French, German, government and politics, history, mathematics, music, physics, psychology, and Spanish to students who pass examinations with scores of 3, 4, or 5. Details of this program may be obtained from the Academic Advising Office, UNI. (*For limitations in the total amount of credit earned by examination, see page 40.*)

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 head of the department offering the course work. Approval by the Graduate Dean must also be obtained on the same form if the cumulative GPA is below 3.00. The student presents the Student Request form, with appropriate signature(s), when scheduling for class. Their combined total of course credits, both undergraduate and graduate, may not exceed fifteen hours in a semester or eight hours in a summer session, and they must be enrolled in sufficient undergraduate work to complete the bachelor's degree in the semester or summer session in which application is made.

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

Workshops and Study Tours

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

Occasionally, departments of the university may arrange extensive study tours here and abroad for credit. These trips are open to graduate and undergraduate students. Plans for this type of study and

the number of hours of credit which may be earned are announced through university publications. During recent summers several study tours were conducted by departments of the university. (See page 8-9 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 advisors. Forms are available in all departmental offices and from the Office of the Registrar. The advisor'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. This information is available in the Office of the Vice President, 103 Student Services Center.

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 publication entitled *Policies and Regulations Affecting Students*. 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 is committed to a policy of equal opportunity and non-discrimination without regard to race, national origin, color, religion, sex, age, disability, or any other basis protected by law. The University has adopted the following policies in accordance with public policy and law.

Equal Employment Opportunity and Non-Discrimination

It is the policy of the University of Northern Iowa that there shall be equal opportunity and non-discrimination in employment, retention, and advancement without regard to race, national origin, color, religion, sex, age, disability or any other basis protected by law.

Affirmative Action

It is the policy of the University of Northern Iowa that affirmative action shall be in effect for minority persons, women, Disabled persons, Disabled Veterans and Veterans of the Vietnam Era.

Equal Educational Opportunity

It is the policy of the University of Northern Iowa that there shall be equal educational opportunity and non-discrimination in all educational programs and equal accessibility to all facilities without regard to race, national origin, color, religion, sex, age, disability or any other basis protected by law.

Affirmative action, equal opportunity, and non-discrimination are the responsibility of all who work and study at the University of Northern Iowa, and are implemented throughout the University with the support of faculty, staff, and students.

The University is further committed to a work and study environment which enhances successful affirmative action outcomes. Decisions governing selection, placement, and promotion are made on the basis of merit and performance. Minority persons, women, persons with disabilities, Vietnam era and disabled veterans, and people of all ages are finding employment and educational opportunities at the University of Northern Iowa.

For additional information on affirmative action, contact the Office of Affirmative Action Programs, 115 Gilchrist Hall, 319/273-2846.

▼ Undergraduate Program Requirements

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

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

Accounting

(College of Business Administration)

G. Smith, Head. R. Abraham, L. Andreesen, H. Ashbaugh, D. Davis, G. Halverson, J. Heian, S. Jakubowski, T. Lindquist, J. MacArthur, L. Nicholas, M. Tanner, J. Ward.

Note: Students who wish to major in Accounting are considered Pre-Accounting majors until they meet the College of Business Administration 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 College of Business Administration (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 College of Business Administration. Accounting majors must complete the College of Business Administration admission requirements and have junior standing in order to take 100-level College of Business Administration courses. (A copy of the admission and retention requirements may be obtained from the Advising and Registration Office in the College of Business Administration.) To graduate with a major in Accounting from the College of Business Administration, a student must complete 12:030, 12:031, 92:020, 92:053, 92:054, and 92:070 with at least a C- in each course whether taken at UNI or an institution from which transfer credit for these courses is accepted; must earn a 2.20 cumulative grade point average at UNI; and must earn an overall 2.20 grade point average in 12:xxx, 13:xxx, 15:xxx, 16:xxx, and 92:xxx courses taken at UNI. Students may repeat Accounting courses with the exception that subsequent to successfully completing a 100-level Accounting course, they may not repeat Principles I (12:030) or Principles II (12:031).

Accounting Major

Required:

Accounting: 12:129; 12:130; 12:136.....	9 hours
Electives: 9 hours from the following.....	9 hours
Accounting: 12:131; 12:132; 12:134; 12:135; 12:138; 12:141; 12:142; 12:148.	
College of Business Administration Requirements.....	39 hours
Accounting: 12:030; 12:031.	
Marketing: 13:101.	
Management: 15:080; 15:100; 15:153; 15:154; 15:175.	
Finance: 16:151.	
Economics: 92:020; 92:053; 92:054; 92:070.	

57 hours

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:

Accounting: 12:030.....	3 hours
Marketing: 13:101.....	3 hours
Management: 15:153.....	3 hours
Electives: at least 9 hours from Accounting area.....	9 hours
	18 hours

Art

(College of Humanities and Fine Arts)

W. Lew, Head. C. Adelman, R. Behrens, C. Bickley-Green, S. Bigler, J. Byrd, B. Cassino, R. Colburn, F. Echeverria, P. Fass, A. Martin, J. Schnabel, A. Shickman, V. Siddens, T. Stancliffe, C. Streed, M. Sugarman, K. Yuen, D. Zlotzky.



Major programs are offered by the Department of Art in two baccalaureate degree areas, the Bachelor of Arts and the Bachelor of Fine Arts. The Bachelor of Arts degree is a liberal arts program that provides the art major with three emphasis options: studio, art history, or art education (teaching). The Bachelor of Fine Arts degree is an extended program with an intensive studio emphasis. The baccalaureate degree programs in the Department of Art are accredited by the National Association of Schools of Art and Design.

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

Foundations Program

The Foundations Program is a one-year program required for all art majors and art minors. Introductory courses are offered that will provide an intense exploration of basic art concepts and skills as preparation for specialized and advanced areas of study.

Art majors take the 18 hours of introductory courses in the first year of study. The Foundations Program is prerequisite to all studio and art history courses. Generally, students enroll in Drawing I, 2-D Concepts, Art History I during the first semester and Drawing II, 3-D Concepts, Art History II the second semester.

Required:

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

Bachelor of Fine Arts Degree Program

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

Art Major — Studio Emphasis (Extended Program)

Required: Foundations Program (requirements listed above)	18 hours
Required: B.F.A. Portfolio Admission Review (requirements listed above)	0 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: Art History Distribution	9 hours
Other requirements	8 hours
60:192 B.F.A. Seminar (2 credits)	
60:196 B.F.A. Project I (3 credits, in area of studio concentration)	
60:197 B.F.A. Project II (3 credits, in area of studio concentration)	
60:189 B.F.A. Exhibition (no credits)	
Studio Electives	33 hours
	86 hours

As a graduation requirement, each B.F.A. candidate must complete a concentration of no less than 15 semester hours in any one of the following studio areas: ceramics, drawing (excluding Drawing I and Drawing II), graphic design, metalwork, painting, papermaking, photography, printmaking or sculpture. These semester hours are to be derived from the Studio Electives.

Also required is the B.F.A. exhibition (60:189). The B.F.A. exhibition serves as the exit requirement for this degree program.

Bachelor of Arts Degree Programs

Art Major—Studio Emphasis

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: Art History Distribution	6 hours
Required: Studio Concentration	9 hours
9 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.	
Studio courses used to fulfill the studio distribution requirement cannot be used to fulfill requirements in the studio concentration.	
Studio Electives	6 hours
Minimum of 6 hours required; minimum of 45 total hours are required for this emphasis.	
	45 hours

Art Major—Art History Emphasis

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: Art History Distribution	6 hours
—One course from each of the following groups:	
Group 1 — 60:139; 60:140; 60:141-01; 60:141-05; 60:141-06.	
Group 2 — 60:141-02; 60:142; 60:144; 60:146; 60:151; 60:152	
Required: Art History in Non-Western Cultures	3 hours
—One course from the following: 60:139; 60:140; 60:141-03; 60:141-04; 60:141-07; 60:147.	
Required: Art History Research Methods and Writing Course	2 hours
60:138.	
Required: Art History Concentration	9 hours
At least three courses from the aforementioned Art History Group 1 or Group 2.	
Art history courses used to fulfill the art history distribution requirement cannot be used to fulfill requirements in the art history concentration.	
Art History Electives	6 hours
A minimum of two courses from the above listing of art history courses and/or 60:149, 60:153, 60:191.	
	50 hours

Students electing an emphasis in art history must also fulfill a foreign language requirement of 13-18 hours, or demonstrate competency through the first of the Composition courses in the chosen language. French or German is recommended.

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; 60:055; 60:074.	
Art electives	6 hours
	52 hours

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

Studio Concentration: A total of 9 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.

Art History Concentration: A total of 12 hours of 100-level courses in art history.

*Completion of this course sequence will satisfy 24:020 of the professional education requirements.

Art Minor

Required: Foundations Program	18 hours
Art studio elective	3 hours
	21 hours

Art Minor—Teaching

Required: Foundations Program	18 hours
Required: Studio Electives	6 hours
Required: Art Education (elementary and secondary)	10 hours
Elementary Art Education: 60:091 and 60:092 (5 hours) and	
Secondary Art Education: 60:193 and 60:194 (5 hours).	
	34 hours

Biology

(College of Natural Sciences)

G. Hoffman, Head. V. Berg, B. Bergquist, J. Dunn, K. Klier, J. Kotenko, C. Lee, D. McCalley, A. Orr, K. Pontasch, O. Schwartz, R. Seager, R. Simpson, D. Smith, J. Trainer, P. Whitson, D. Wiens, N. Wilson.

Major programs are offered by the Department of Biology in two baccalaureate areas: the Bachelor of Arts and the Bachelor of Science. The Bachelor of Science degree is recommended for most students preparing for graduate study in biology. The Bachelor of Arts degree provides a choice among several tracks depending upon student interest and/or career plans.

Note: Students should submit their declaration of a biology major early in their college programs. This will permit them to plan their major courses with a department advisor to avoid future conflicts. Transfer students with previous courses in biology, zoology, or botany must have transfer courses evaluated to avoid duplication and possible loss of credit. Decisions regarding UNI major courses and transfer credits should be approved by the department head or advisor.

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 eight semesters, students should work with advisors 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
Cognate:	
Mathematics: 80:060; 80:061.....	8 hours
Computer Science: 81:070 or 81:081.....	3 hours
Chemistry: 86:044 and 86:048, or 86:070; 86:120; 86:121; 86:123 13-16 hours	
Physics: 88:054 and 88:056 or 88:130; 88:131; 88:060 and 88:061.....	8-10 hours
Electives in Biology* (100-level or above).....	12-13 hours
	68-73 hours

*A minimum of 36 hours in Biology is required.

86:154 counts as an elective in 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 who select this major to prepare themselves for graduate study in biology, botany, zoology or other fields in the biological sciences should consult with their advisor for elective courses.

Required:

Biology: 84:051; 84:052; 84:128; 84:140; 84:168.....	18 hours
Cognate 21-25 hours	
Chemistry: either 86:044 and 86:048, or 86:070; 86:120; 86:121; 86:123 or 86:132.	
Earth Science: 87:031 and 87:035 or	
Physics: 88:054 and 88:056.	
Electives in biology (100-level or above).....	12-16 hours
	55 hours

Note: A working 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 selected from the following (consult with advisor): 84:106; 84:112; 84:114*; 84:117; 84:118; 84:128; 84:131; 84:132; 84:140; 84:146; 84:151; 84:157; 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. With student teaching and other courses designed specifically for those planning to teach, this curriculum prepares one to teach biology, life science and other courses at the secondary level. This is an extended program requiring nine semesters; therefore, students planning to teach should contact their advisors early in their program. This program is an excellent base for graduate work in biology education, science education, or 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.....	28-30 hours
Chemistry: either 86:044 and 86:048, or 86:070; 86:120; 86:121; 86:123 or 86:132	13-17 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	9-15 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.....	13-17 hours
Chemistry: 86:044 and 86:048, or 86:070; 86:120; 86:121; 86:123 or 86:132.	
Electives from courses below	16-20 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 (Extended Program)

This extended major prepares students in field natural history for employment as professional interpreters with park systems, nature centers, zoos, museums and natural history inventories. The major provides students with natural history expertise, interpretive techniques, resource management training. Experience with environmental education program development and interpretive practice is incorporated.

Required:

Biology: 84:051; 84:052; 84:103; 84:160; 84:166; 84:168; 84:180.....	25 hours
Cognate courses:	
Chemistry: 86:061; 86:063.....	8 hours
Earth Science: 87:031; 87:035.....	8 hours
Interpretation: 82:132; 84:184; 84:195; 84:196.....	19 hours
Electives at 100 level approved by advisor; minimum of 6 hours of biology, a minimum of 3 hours of cognate area(s).....	11 hours
	71 hours

Biology Minor

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

Biology Minor—Teaching

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.

Required:	17-18 hours
Biology: 84:051; 84:052.	
Chemistry: 86:044 or 86:070. (Design, Family and Consumer Sciences majors may substitute credit in 86:061 for this requirement.)	
Methods:	
Science and Science Education: 82:190; 82:196.	
Biology: 84:193.	
Electives in biology at 100 level.....	9-10 hours
	27 hours

Chemistry**(College of Natural Sciences)**

D. Bartak, Head. J. Chang, C. Hanson, J. Macmillan, L. McGrew, K. Manfredi, E. Richter, P. Rider, I. Simet, W. Wehner, R. Wiley, C. Woo.

Major programs are offered by the Department of Chemistry in two baccalaureate areas: the Bachelor of Science and the Bachelor of Arts. The chemistry program leading to the Bachelor of Science Degree is accredited by the American Chemical Society. This program is recommended for students who wish to prepare for careers as professional chemists. It also provides the most complete preparation for 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.

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

Bachelor of Science Degree Program

— 130 semester hours

Chemistry Major**Required:**

Mathematics: 80:060; 80:061.....	8 hours
Computer Science: 81:070 or 81:081.....	3 hours
Chemistry: 86:044 and 86:048 or 86:070; 86:120; 86:121; 86:123; 86:125; 86:132; 86:137; 86:140; 86:141; 86:143 (2 hrs.); 86:145; 86:147 (1 hr.).....	35-38 hours
Physics: 88:060 and 88:061 and 88:130 and 88:131; or 88:054 and 88:056 and one 100-level cognate elective of at least 3 hours.....	10-11 hours
Additional advanced study, to include at least 2 hours in 86:180 Undergraduate Research and at least 3 hours in a chemistry lecture course carrying a physical chemistry prerequisite.....	7-10 hours
	66-67 hours

Emphasis—Honors Research

This emphasis is available to qualified students pursuing the Bachelor of Science program by invitation at the beginning of their junior year. Completion of Honors Research requires 5 credit hours in 86:180 Undergraduate Research and the writing of a senior research thesis. The research credit may be applied to the elective hours of the B.S. degree.

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 advisor 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
Chemistry: 86:044 and 86:048 or 86:070; 86:120; 86:121; 86:123; 86:132; 86:137; 86:140; 86:141; 86:143.....	29-32 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

Combined BA/MA Program

The Department of Chemistry offers a combined program leading to the Bachelor of Arts and Master of Arts degrees. Proper scheduling of courses allows the program to be completed in five years. The undergraduate requirements are identical to those of the Chemistry-B.A. major listed above. Please refer to the Chemistry heading of the graduate section of this catalog (pages 97-98) for detailed information on enrollment procedures and graduate program requirements.

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 College of Business Administration, 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
Marketing: 13:101; 13:106; 13:153; 13:161 or 13:176 or 13:178	12 hours
Management: 15:153	3 hours
Chemistry: 86:044 and 86:048, or 86:070; 86:120; 86:121; 86:123; 86:132; 86:136 or 86:154; 86:142	24-27 hours
Economics: 92:024 or 92:054	3 hours
	<u>48-51 hours</u>

Note: Students on this major are strongly encouraged to complete 13:108. Additional prerequisites for 13:108 are 15:080, 80:072, 92:020, and 92:070.

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
	<u>20 hours</u>

Chemistry Minor—Teaching

Required:

Chemistry: 86:044 and 86:048, or 86:070; 86:063 or 86:120; 86:123; 86:132; 86:142; 86:193.....	20-23 hours
Science methods: Science and Science Education: 82:190; 82:196.....	3 hours
Electives from the following.....	1-4 hours
Chemistry: 86:121; 86:136; 86:144; 86:186 (Studies in).	
	<u>27 hours</u>

Communication and Theatre Arts

(College of Humanities and Fine Arts)

J. Hall, Head. W. Ausmus, R. Bankston, M. Beall, M. Beckwith, G. Berghammer, S. Bland, M. Bozik, J. Butler, B. Byers-Pevitts, P. Carlin, J. Casper, A. Chatham, S. Chen, C. Colburn, R. Conklin, V. DeFrancisco, J. Edelman, P. Edwards, M. Fay, G. Glenn, R. Glockner, C. Goatley, B. Henderson, M. Jensen, D. Kruckeberg, K. Mitchell, P. O'Connor, S. Salisbury, P. Sannerud, M. Shaw, P. Siddens, J. Skaine, R. Snyder, L. Terlip, J. Turner, W. Ulrich, B. Wickelgren.

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

This policy applies to the following majors: Communication and Theatre Arts Major (liberal arts "contract"), Communications/Public Relations Major, Communications/Broadcast Major (all emphases) and to Communication and Theatre Arts Minor (liberal arts "contract") and Business Communications Minor.

Majors

1. Students may indicate their interest in majoring in a Communication and Theatre Arts Program any time after their admission to UNI. Indication of interest shall be formally made via the Declaration of Curriculum form at which time the student will be considered a "pre-major" and will be assigned a "pre-major advisor." (For freshmen, this shall be a freshman advisor.)
2. A student's freshman year shall be devoted primarily to course work in General Education. The General Education load shall include 50:023

(Oral Communication) and 62:005 (Introduction to College Writing). Major course work shall be limited to courses as recommended by her/his freshman advisor and program policy.

3. By the end of the fall term of a student's sophomore year, pre-majors shall have completed a course major component as designated by the pre-major advisor and program policy.
4. The following criteria shall be used for determination of admission:
 - a. 2.50 cumulative GPA in at least 24 hours of course work (to include 50:023 Oral Communication and 62:005 Introduction to College Writing).
 - b. 2.50 average GPA in the designated major component.
 - c. Upon satisfaction of the admission requirements (a and b above), a student shall be converted to major status after the student files a Declaration of Curriculum which will then be processed and the student assigned a major advisor. The student shall be notified of her/his admission.
 - d. Students admitted to a major shall be able to continue course work toward their major.
 - e. Students unable to satisfy the admission requirements and consequently denied admission shall be notified in writing.
 - f. Students denied admission to a major shall not be allowed to pursue major course work except in cases where vacancies exist after all majors have registered. These students may use waiting lists as a means to seek access to courses. Students will be assigned interim advisors until admission requirements are met.
5. Transfer students entering UNI with an associate arts (A.A.) degree shall be admitted to a major status if their cumulative GPA is 2.50 or better and upon the condition that the requirements of both 50:023 (Oral Communication) and 62:005 (Introduction to College Writing) were satisfied at their junior colleges.
6. Transfer students entering UNI without an A.A. degree shall be subject to the admissions standards requirements of students beginning their higher education studies at UNI, i.e. #4.

Designated Course Components:

- A. Public Relations: 50:077; 50:037.
- B. Broadcasting: 50:018; 50:060.
- C. Communication and Theatre Arts—Liberal Arts (Contract): 50:030 or 50:031; 50:034.

Minors

1. Admission to a Communication and Theatre Arts Minor (contract) or a Business Communications Minor (communication emphasis) requires a 2.50 cumulative GPA in at least 24 hours of course work (to include 50:023 and 62:005).

Communication and Theatre Arts Major

Required:

Communication and Theatre Arts: courses (excluding 50:023, 50:044, 50:130, 50:193, 50:194, 50:196).....	40 hours
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In consultation with an advisor, specific major requirements may be designed around the student's career objective. Programs may be designed in such areas as organizational/corporate communications, interpersonal communication, political communication, intercultural communication, et al. See department for model programs. At least twelve (12) semester hours must be taken from 100-level Communication and Theatre Arts courses (50:1XX). 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 advisor and by a standing committee of three.

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

A minor is strongly recommended.

Communication and Theatre Arts Major—Teaching

Required:

Communication and Theatre Arts—Content Core Requirements: 50:025; 50:030; 50:031; 50:034; 50:050; 50:053; 50:103; 50:139	24 hours
Communication and Theatre Arts: 50:114; 50:144	6 hours
50:193; 50:194; 50:196	7 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; 50:045; 50:080; 50:082; 50:105; 50:107; 50:113; 50:128; 50:134; 50:137; 50:140; 50:143; 50:145; 50:151; 50:152; 50:156; 50:157; 50:164; 50:182; 50:191	3-4 hours
Journalism: 66:032	3 hours
	45-46 hours

Communications/Public Relations Major

The Communications/Public Relations Major requires the completion of 61 credit hours as follows:

Required:

Accounting: 12:030	3 hours
Marketing: 13:101; 13:106	6 hours
Management: 15:153	3 hours
Industrial Technology: 33:055 or Art: 60:025	3-4 hours
Communication and Theatre Arts: 50:034; 50:037; 50:064; 50:077; 50:118 or 50:140 or 50:164; 50:137 or 50:165; 50:138; 50:163; 50:164g; 50:177; 50:178	33 hours
Journalism: 66:040	3 hours
Electives to total 9-10 hours, based on specific interest of the student from list below	9-10 hours
Marketing: 13:187; 13:191. Educational Media: 24:130; 24:131; 24:138; 24:156. Educational Media: 24:147 or Industrial Technology: 33:169 or Art: 60:032.	
Communication and Theatre Arts: 50:017; 50:030; 50:103; 50:117; 50:119; 50:128; 50:131; 50:136; 50:137; 50:165; 50:168; 50:179 and/or 50:197; 50:183; 50:184; 50:185. Art: 60:125. English Language and Literature: 62:104; 62:105. Journalism: 66:102; 66:132; 66:140; 66:141; 66:150.	
	61 hours

Advisory Statement: A Journalism minor is strongly recommended. Requirements of the public relations major may also be used to meet requirements of the journalism minor, but electives may not be counted toward both.

Communications/ Broadcast Major

Required core 20 hours

Communication and Theatre Arts: 50:018; 50:031; 50:060;
50:061; 50:062; 50:064.

Emphasis (choose from one of the three emphases below)	27-39 hours
	47-59 hours

Production/Performance/Writing Emphasis: (30 hours)

Required emphasis core	15 hours
Communication and Theatre Arts: 50:120; 50:137 or 50:165; 50:12a or 50:141 or 50:142 or 50:171; 50:170; 50:174.	
Elective Category 1: (9 hours from the following)	9 hours
Communication and Theatre Arts: 50:153; 50:154; 50:155; 50:172; 50:175.	
Elective Category 2: (6 hours from the following)	6 hours
Communication and Theatre Arts: 50:032; 50:050; 50:077; 50:12a; 50:141; 50:142; 50:150; 50:158; 50:16c; 50:171; 50:173; 50:197. Music: 56:015. Physics: 88:018.	

Broadcast Journalism Emphasis: (27 hours)

Required emphasis core	18 hours
Communication and Theatre Arts: 50:066; 50:150; 50:161; 50:172; 50:174. Journalism: 66:040.	
Electives: (9 hours from the following)	9 hours
Communication and Theatre Arts: 50:077; 50:12a; 50:118; 50:142; 50:153; 50:155; 50:158; 50:173; 50:175; 50:197. Journalism: 66:132; 66:140; 66:141.	

A minor other than journalism is required with this emphasis.

Broadcast Business Emphasis: (39 hours)

Required emphasis core	12 hours
Communication and Theatre Arts: 50:165; 50:16c; 50:170; 50:174.	
Required business core	15 hours
Accounting: 12:030. Marketing: 13:101. Management: 15:153. Economics: 92:053; 92:070. (Hidden prerequisites: 80:072 or 80:092 - both G.E. options)	
One of the following two options	12 hours
Option 1: Management Emphasis Management: 15:163; 15:165; 15:166. Finance: 16:151. (Hidden prerequisites: 12:031, 92:054)	
Option 2: Marketing and Sales Emphasis Marketing: 13:106; 13:150; 13:153; 13:176.	

Note: 92:024, 80:070 and 80:092 are all general education offerings.

Theatre Arts Major

Required:

Core requirements: Communication and Theatre Arts: 50:021; 50:022; 50:025; 50:027; 50:045; 50:050; 50:052; 50:053; 50:082; 50:147; 50:148	34 hours
One of the options below for a total of	24-25 hours
	58-59 hours

Acting Option: (25 hours)

Physical Education: 42:035.
Communication and Theatre Arts: 50:024; 50:054; 50:080;
50:149; 50:15a; 50:162; 50:181; 50:195 (1 hr.).
Music, Applied: 54:N49.

Design and Technology Option: (24 hours)

Communication and Theatre Arts: 50:051; 50:151 (sets);
50:151 (costume); 50:156; 50:167; 50:195.
9 hours of electives from: 50:107; 50:157; 50:167;
50:180; 50:191; 50:195.

General Option:

24 hours from theatre courses.

Communication and Theatre Arts/ Communicative Disorders

Music Theatre Major

(Bachelor of Fine Arts interdisciplinary degree program—requirements listed under the School of Music, see page 79.)

Business Communications Minor

This minor in business communication is interdisciplinary in nature and offered jointly by the College of Humanities and Fine Arts and the College of Business Administration. It is under the jurisdiction of the Departments of Management, English Language and Literature, and the Department of Communication and Theatre Arts. The minor requires a 12-hour core plus six (6) hours from one of three emphases.

Required core:
 Communication and Theatre Arts: 50:138; 50:1636 hours
 English Language and Literature: 62:104; 62:1056 hours
 Required: six (6) hours from one of three emphases below6 hours
 18 hours

Emphases—

Business:

Management: 15:113; 15:114.

OR

Communications:

Two of the following—
 Communication and Theatre Arts: 50:183; 50:184; 50:185.

OR

English:

Two of the following—
 Journalism: 66:102; 66:141; 66:150.

Advisory Statement:

- Students who are pursuing this minor must complete 50:023 and 62:005.
- Students declaring a business communication minor with an emphasis in speech communication must have a 2.5 cumulative gpa.
- Students must achieve a minimum grade of C (2.0) in all communication courses (50 prefix) to be applied toward this minor. Grades achieved less than 2.0 will require a repeat of the course.

Communication and Theatre Arts Minor

Required:
 Elective courses* in Communication and Theatre Arts18 hours
 *Excluding 50:023, 50:044, 50:130, 50:193, 50:194, and 50:196.

Specific requirements for this minor should be designed, in consultation with a departmental advisor, for a specific objective or area of study. At least twelve (12) semester hours must be taken from 100-level Communication and Theatre Arts (50:1xx) courses. The minor program requires the written approval of the advisor 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.

Required core15 hours
 Communication and Theatre Arts: 50:031; 50:034; 50:144;
 50:193.
 Journalism: 66:032.
 Option A or B10 hours
Option A: Communication
 Communication and Theatre Arts: one hour from 50:011/50:111 or
 50:015/50:115; 50:030; 50:114; 50:130.
Option B: Theatre
 Communication and Theatre Arts: 50:025; 50:050; 50:053. 25 hours

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

Required:
 Communication and Theatre Arts: 50:030; 50:035; 50:103;
 50:114 or 50:134; 50:129 (50:031 may be substituted
 with permission); 50:130; 50:16a17 hours

Note: Meets Department of Education licensure of 20 hours because general education course 50:023, Oral Communication, may count toward the 20.

Communication and Theatre Arts—Interpretive Communication Minor

Required:
 Communication and Theatre Arts: 50:031 (Must be taken prior
 to the following interpretation courses.)3 hours
 15 hours from the following courses; program to be
 approved by the interpretation faculty: 50:104; 50:106;
 50:108; 50:114; 50:116; 50:118; 50:12315 hours
 50:034; 50:115; 50:1377 hours
 25 hours

Communicative Disorders

(College of Humanities and Fine Arts)

J. Smaldino, Head. H. Beykirch, M. Boots, C. Hageman, J. Harrington, C. Highnam, R. McGuire, L. Nelson, B. Plakke.

Communicative Disorders Major

Required:
 Communicative Disorders: 51:100; 51:106; 51:107; 51:111;
 51:125; 51:127; 51:142; 51:144; 51:147; 51:150;
 51:155; 51:156; 51:157; 51:160; 51:162; 51:165;
 51:174; 51:19547-49 hours
 Statistical Measurement: a 3-hour course in statistics
 selected with approval of the advisor3 hours
 50-52 hours

The successful completion of the undergraduate major or its equivalent will be considered adequate preparation for application to graduate education in speech-language pathology. If there are incomplete undergraduate requirements, the departmental academic graduate advisor, in consultation with the student, will determine how such requirements will be remediated.

Students must have an overall grade point average of 3.00 or consent of the department head to declare a major in the Communicative Disorders. Declaration of the major must occur before enrollment in 51:106 and all accompanying courses in that semester's sequence. Transfers into the major must have a 3.00 to be accepted into the program. An overall GPA of 3.00

must be maintained throughout the undergraduate program or approval to continue must be obtained from the department head. The 3.00 will be the minimum GPA required for acceptance into the graduate program.

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 the course in statistics) 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 advisor and the department head. All students in the major must abide by the policies and procedures found in the major manual which is published by the department and available for purchase from the department secretary.

Computer Science

(College of Natural Sciences)

K. O'Kane, Head. W. Beck, P. East, M. Fienup, T. Hausmann, E. Mirhakkak, M. Pegah, S. Walljasper, C. Wehner.

Notes:

1. A student majoring or minoring in 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 or minor may not apply to his/her major or minor a departmental course in which a grade of less than C- is earned.
2. Undergraduate students who have been admitted to the university provisionally because of non-satisfaction of the high school mathematics requirements may not enroll in any computer science credit course before this requirement has been met.
3. Students majoring in Management Information Systems must take at least nine credit hours not used within the MIS major to qualify for the Computer Science or the Computer Information Systems minor.

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
Accounting: 12:030; 12:031.	
Marketing: 13:101.	
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

*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:* (four of the following courses):	
Mathematics/Computer Science: 80:176; 80:177; 81:110; 81:111; 81:132; 81:145; 81:150; 81:155; 81:160; 81:178; 81:184; 81:187	12 hours
	44 hours

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

Computer Information Systems Minor

Required	12 hours
Mathematics: 80:050 or 80:072 or 80:074.	
Computer Science: 81:081; 81:110; 81:111.	
Electives: (two of the following)	6 hours
Management: 15:140.	
Mathematics: 80:177.	
Computer Science: 81:082; 81:120; 81:130; 81:132; 81:150.	
	18 hours

Computer Science Minor

Required	12 hours
Mathematics: 80:074.	
Computer Science: 81:081; 81:082; 81:130.	
Electives: six hours selected from	6 hours
Computer Science: 81:110; 81:111; 81:120; 81:132; 81:135; 81:140; 81:145; 81:150; 81:155; 81:160; 81:178.	
	18 hours

Computer Science Minor—Teaching

Required	18 hours
Mathematics: 80:074.	
Computer Science: 81:081; 81:082; 81:130; 81:135; 81:190.	
Electives from the following courses	9 hours
Computer Science: 81:025; 81:110; 81:111; 81:120; 81:140; 81:145; 81:160; 81:178.	
	27 hours

Curriculum and Instruction

(College of Education)

M. Ishler, Head. J. Duca, A. Federlein, J. Finkelstein, R. Hardman, J. Harms, M. Heller, L. Hiland, R. Kueter, L. Kuse, J. Lewis, J. Marchesani, C. May, R. Muffoletto, B. Safford, S. Smaldino, J. Steele, G. Stefanich, T. Switzer, C. Thompson, D. Tidwell, P. Tralton, R. Traw, C. Ulmer, W. Waack, M. Weiser, M. Yoder.

Early Childhood Education Major—Teaching

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

Required:	
Educational Psychology: 20:109	3 hours
Elementary, Early Childhood, and Middle School/Junior High: 21:130; 21:149; 21:151; 21:161; 21:164; 21:192	17-19 hours
Reading and Language Arts: 23:044; 23:115; 23:116	9 hours
Design, Family and Consumer Sciences: 31:030	2 hours
Mathematics: 80:030; 80:134	6 hours
	37-39 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 courses in the department.

Curriculum and Instruction

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

Elementary, Early Childhood, and Middle School/Junior High: 21:120; 21:152	6 hours
Elementary, Early Childhood, and Middle School/Junior High: 21:123 or	
Music: 52:102 or	
Art: 60:090	2-3 hours
Health: 41:135 or	
Physical Education: 42:045 or	
Health, Physical Education and Leisure Services-Interdepartmental: 44:045	2-3 hours 10-12 hours

Elementary Education Major—Teaching (K-6 General Classroom Teacher)

(Extended Program)

The student will complete the General Education requirements, the noted Professional Education Requirements, 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 Education Requirements—Elementary Education

Required:	
Special Education: 22:150	2 hours
Educational Media: 24:031*	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: 28:070	3 hours
Social Foundations: 26:119	3 hours
Teaching: 28:1xx Student Teaching (course number denotes area in which experience is gained: 28:132, 28:134, 28:135, 28:137, 28:138, 28:139, 28:140, 28:250)	12 hours 33 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 or	
Health, Physical Education and Leisure Services- Interdepartmental: 44:045	2-3 hours
Mathematics: 80:030; 80:134	6 hours
Electives:	
Educational Psychology: 20:100 or	
Curriculum and Instruction: electives	2-0 hours 33 hours

*Students must select 24:031 in place of 24:020 in the Professional Education Requirements unless the computer requirement is addressed in a minor subject field or elective course.

A 2.50 grade index in 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 registration in major courses in the department.

Students should plan their course work so that the following courses are taken concurrently as a professional semester block, prior to student teaching:

Elementary, Early Childhood, and Middle School/Junior High:

21:120 or 21:122; 21:161; 21:164.
Reading and Language Arts: 23:116.

Students should apply for their professional semester in the Department of Curriculum and Instruction one year in advance. To be eligible for the courses in the Professional Semester block, students must have completed Level II of the Professional Education Requirements, a curriculum course (21:150 or 21:152), and have a cumulative 2.50 GPA.

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 29 hours

Basic Science Minor (K-6)—Teaching

Required:	
Elementary and Middle School/Junior High: 21:141	3 hours
Science and Science Education: 82:031; 82:032; 82:130; 82:181	14 hours
Biology: 84:181	4 hours
Earth Science: 87:181	4 hours 25 hours

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

Required:	
Communication and Theatre Arts: 50:030; 50:035; 50:103; 50:114 or 50:134; 50:129 (50:031 may be substituted with permission); 50:130; 50:16a	17 hours

Early Childhood Minor (K-6)—Teaching

Required:	
Educational Psychology: 20:109	3 hours
Elementary, Early Childhood, and Middle School/Junior High: 21:130; 21:149; 21:151; 21:192	11 hours
Design, Family and Consumer Sciences: 31:030	2 hours
Electives in early childhood or elementary education methods planned in consultation with advisor	8 hours 24 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 24 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 (1 hr.)	16 hours
Communication and Theatre Arts: 50:129 or 50:130	3 hours
English Language and Literature: 62:005; 62:052	6 hours
	25 hours

Health Education Minor (K-6)—Teaching

Required.....26 hours

(The Health Education Minor (K-6) is under the jurisdiction of the School of Health, Physical Education and Leisure Services. Requirements are listed on page 66.)

History Minor (K-6)—Teaching

Required:

Elementary, Early Childhood, and Middle School/Junior High: 21:1433 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

Mathematics Minor (K-6)—Teaching

Required:

Mathematics: 80:023 or 80:072 or 80:092; 80:030; 80:037; 80:111; 80:112; 80:113; 80:114; 80:137 or 80:192	24 hours
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Modern Languages Minor (K-6)—Teaching

Required.....24 hours

(These emphases are under the jurisdiction of the Department of Modern Languages and requirements are on pages 77 and 78. Minors can be selected from French, German, Russian, and Spanish.)

Physical Education Minor (K-6)—Teaching

Required.....26 hours

(The K-6 Physical Education Minor is under the jurisdiction of the School of Health, Physical Education and Leisure Services. Requirements are listed on page 66.)

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
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Social Studies Minor (K-6)—Teaching

Required:

Elementary, Early Childhood, and Middle School/Junior High: 21:1433 hours	
Economics: 92:053	3 hours
Political Science: 94:014	3 hours
History: 96:014 or 96:015	3 hours
Geography: 97:010 or 97:040	3 hours
Sociology: 98:058	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.....20-29 hours

(These emphases are under the jurisdiction of the Department of Special Education, and requirements are given on page 87. K-6 emphases can be selected from: Behavioral Disorders, Learning Disabilities, and Mental Disabilities Mild/Moderate.)

Middle School/Junior High School Education Major - Teaching

The major is designed to prepare students to teach pre- and young adolescents at the middle level (grades 4-9). It is a dual major which must be combined with either an elementary or secondary teaching major. Students will complete General Education requirements, the Professional Education Requirements, major requirements, major requirements for elementary or secondary teaching, and subject specialty requirements. The student teaching semester will include two experiences, one in either an elementary or secondary classroom and the other in a junior or middle school.

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
A methods course in the subject area or minor	2-3 hours
Electives selected with approval of advisor	13-14 hours
	30 hours

Students enroll for 28:137 and 28:134 or 28:138 for a total of 12 hours.

The program should be planned so the following courses are completed after Level II of the Professional Education Requirements and prior to student teaching: 21:122; 21:150; and a methods course in the subject area specialty.

Note: Current licensure options in Iowa include K-6 or 7-12; there is no special middle level endorsement. Approximately 35 states have some form of middle level licensure. This program may meet some or all licensure requirements in other states.

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 license.

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.

Curriculum and Instruction/ Design, Family and Consumer Sciences

Media Minor

Required:

Educational Media: 24:020 or 24:031 or 24:131; 24:101; 24:139; 24:147; 24:150.....	12-13 hours
Electives: six hours in media courses.....	6 hours
	<u>18-19 hours</u>

Secondary Reading Minor— Teaching

Completion of this program qualifies a secondary teaching major to receive an endorsement as a reading teacher (7-12).

Required:

Reading and Language Arts: 23:130*; 23:132; 23:140; 23:147; 23:192; 23:193 (1 hr.).....	16 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
	<u>27-28 hours</u>

*Course work required on current English teaching major.

Design, Family and Consumer Sciences

(College of Social and Behavioral
Sciences)

R. Chung, Head. B. Caron, P. Conklin, M. Franken, A. Lynch, J. Morgan, B. Pershing, J. Spaide, M. Story, J. Wells, M. Widmer.

Bachelor of Science Degree Program

—130 semester hours

Dietetics Major

Required:

Design, Family and Consumer Sciences: 31:035; 31:037; 31:038; 31:052; 31:106; 31:130; 31:131; 31:137; 31:141; 31:145; 31:146; 31:149.....	33-34 hours
Accounting: 12:030.....	3 hours
Management: 15:153.....	3 hours
Biology: 84:031; 84:032; 84:033.....	11 hours
Chemistry: 86:044 and 86:048 or 86:070; 86:120; 86:123; 86:154 15-18 hours	
Sociology: 98:080.....	3 hours
	<u>68-72 hours</u>

The Dietetics Major is approved by the American Dietetic Association.

A 2.50 grade point in all course work completed at this university and elsewhere is required at the time of declaring a dietetic major.

Bachelor of Arts Degree Programs

—124 semester hours

Clothing and Textiles: Fashion Merchandising Major

Required:

Design, Family and Consumer Sciences: 31:010; 31:015; 31:020; 31:052; 31:061; 31:108; 31:110; 31:114; 31:115; 31:116; 31:121; 31:124; 31:195.....	37 hours
Three hours from the following: 31:018; 31:111; 31:112; 31:113; 31:117; 31:119; 31:184; 31:199.....	3 hours
Six hours from the following.....	6 hours
Marketing: 13:101	
Economics: 92:024 or 92:053	
Nine hours from the following.....	9 hours
Accounting: 12:030	
Marketing: 13:106; 13:166; 13:191	
Management: 15:153.	
	<u>55 hours</u>

Design and Human Environment Major

Required:

Design, Family and Consumer Sciences: 31:052; 31:061; 31:063; 31:064; 31:066; 31:067; 31:068; 31:075; 31:110; 31:125; 31:126; 31:127; 31:128; 31:164; 31:184 (2 hrs.); 31:195.....	52 hours
Marketing: 13:101.....	3 hours
Management: 15:080.....	3 hours
Economics: 92:024 or 92:053.....	3 hours
Three hours from the following.....	3 hours
Accounting: 12:030	
Marketing: 13:106; 13:150; 13:153; 13:166; 13:178	
Management: 15:153.	
	<u>64 hours</u>

Family Services Major

Required:

Design, Family and Consumer Sciences: 31:030; 31:052; 31:056; 31:057; 31:065; 31:070; 31:153; 31:154; 31:155; 31:156; 31:157; 31:177; 31:195.....	36 hours
One of the following: 20:030; 31:055; or 40:120.....	3 hours
Political Science: 94:142.....	2 hours
Electives: 100-level department-approved courses in areas such as gerontology, family life education, human relationships, or adult education.....	12 hours
	<u>53 hours</u>

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.

Nutrition and Food Science Major

Required:

Design, Family and Consumer Sciences: 31:035; 31:037; 31:038; 31:052; 31:107; 31:130; 31:139; 31:140; 31:142; 31:144; 31:145; 31:146; 31:195.....	35 hours
Marketing: 13:101.....	3 hours
Management: 15:153.....	3 hours
Biology: 84:033.....	3 hours
Chemistry: 86:061; 86:063.....	8 hours
Economics: 92:024 or 92:053.....	3 hours
Three hours from the following.....	3 hours
Accounting: 12:030	
Marketing: 13:106	
Management: 15:080 or 15:113	
Communication and Theatre Arts: 50:138 or 50:163.	
	<hr/> 58 hours

Design, Family and Consumer Sciences Minor

Required:

Design, Family and Consumer Sciences: 31:010; 31:030; 31:052; 31:065; 31:070.....	13 hours
Electives in design, family and consumer sciences.....	6 hours
	<hr/> 19 hours

This minor does not qualify one for teaching design, family and consumer sciences.

Family Life Education Minor

Required:

Design, Family and Consumer Sciences: 31:052; 31:053 or 31:057; 31:0709 hours	
Nine hours from: 31:150; 31:153; 31:154; 31:155; 31:157.....	9 hours
One of the following: 20:030; 31:055; or 40:120.....	3 hours
	<hr/> 21 hours*

This minor does not qualify one for teaching design, family and consumer sciences.

*Other courses approved by the advisor must be substituted to make a total of at least 15 semester hours if courses listed are already counted on the student's major.

The University of Northern Iowa's Design, Family and Consumer Sciences unit is accredited by the Council for Professional Development of the American Home Economics Association.

Earth Science (College of Natural Sciences)

W. Anderson, Head. L. Brant, K. De Nault, T. Hockey, S. Morgan, J. Walters.

Major programs are offered by the Department of Earth Science in two baccalaureate areas: the Bachelor of Arts and the Bachelor of Science. The Bachelor of Science program is recommended for most students who wish to prepare for careers as professional geologists and who plan to enter graduate school 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

Design, Family and Consumer Sciences/Earth Science

Geology Major

Required:

Geology: 87:031; 87:035; 87:125; 87:129; 87:130; 87:131; 87:135; 87:136; 87:141; 87:142 or 87:143; 87:180 (2 hrs.); Summer Field Course (6 hrs.)*.....	43 hours
Required Cognate Areas.....	24-28 hours
Mathematics: 80:060 and 80:061.	
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.	
	<hr/> 67-71 hours

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

*Summer field course requirements to be met by credit earned at a field camp approved by the department.

Bachelor of Arts Degree Programs

Earth Science Major

Required:

8 hours from the following.....	8 hours
Chemistry: 86:044 and 86:048, or 86:070.	
Physics: 88:054; 88:056; 88:130; 88:131.	
3 to 4 hours from the following.....	3-4 hours
Mathematics/Computer Science: 80:040; 80:046; 80:048; 80:060; 80:072; 81:070.	
Earth Science: 87:010**; 87:031; 87:035; 87:121.....	16 hours
100-level courses in earth science.....	11 hours
Electives* selected from earth science, biology, chemistry, geography, physics, science.....	5 hours
	<hr/> 43-44 hours

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

**87:010 must be taken for four semester hours of credit.

Earth Science Major—Teaching

Required.....

Science and Science Education: 82:190; 82:194; 82:196.	
Chemistry: 86:044 and 86:048, or 86:070.	
Earth Science: 87:010*; 87:031; 87:035; 87:121.	
Physics: 88:054; 88:056.	
Electives in earth science: 100-level courses (excluding 87:189).....	10 hours
	<hr/> 44-47 hours

*87:010 must be taken for four semester hours of credit.

Geology Major

Required.....

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
	<hr/> 51-54 hours

*Summer field course requirements to be met by credit earned at field camp approved by the department.

Recommended general electives—Mathematics: 80:060; 80:061.

Earth Science/Economics/Educational Administration and Counseling/Educational Psychology and Foundations

Astronomy Minor

Required.....26-28 hours
Mathematics: 80:060; 80:061.
Earth Science: 87:010*; 87:110; 87:154.
Physics: 88:060**; 88:061***; 88:130; 88:131.

*87:010 must be taken for four semester hours of credit.
**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*; 87:031; 87:035; 87:12116 hours
Chemistry: 86:0444 hours
Physics: 88:0544 hours
24 hours

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.

*87:010 must be taken for four semester hours of credit.

Geology Minor

Required:
Earth Science: 87:031; 87:035; 87:130; 87:131; 87:129 or 87:141; 87:125 or 87:136; 4-5 hours of 100-level electives in geology24 hours
Chemistry: 86:0444 hours
28 hours

Economics

(College of Business Administration)

F. Abraham, Head. W. Anderson, D. Cummings, R. Hook, D. Johnson, R. Krieg, B. Mardis, K. McCormick, C. Mitchell, E. Raiklin, J. Rives, C. Strein, B. Uyar, M. Yousefi.

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

- 1) complete 92:053, 92:054, 92:103, and 92:104 with at least a C-in each course whether taken at UNI or at an institution from which transfer credit for these courses is accepted; and
- 2) earn a 2.50 grade point average for all 92:xxx courses taken at UNI, except 92:020, 92:024, and 92:070.
- 3) 92:020 and 92:070 do not count toward either an economics major or minor.

Economics Major

Required:
Economics: 92:053; 92:054; 92:103; 92:104; 92:16915 hours
Electives in economics (92:103 and 92:104 recommended to be taken before other advanced courses in economics) 21 hours
36 hours

No minor is required.

Economics Minor—Liberal Arts

Required:
Economics: 92:053; 92:054; 92:103; 92:10412 hours
Electives in economics (92:103 and 92:104 recommended to be taken before other advanced courses in economics) 6 hours
18 hours

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

Economics Minor—Teaching

Required:
Economics: 92:053; 92:054; 92:103; 92:10412 hours
Electives in economics (92:103 and 92:104 recommended to be taken before other advanced courses in economics)12 hours
24 hours

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

Educational Administration and Counseling

(College of Education)

D. Jackson, Head. R. Decker, J. Doud, D. Else, F. Guido-DiBrito, V. Jackson, A. Jones, R. Lembke, N. McCumsey, G. Perreault, A. Smith, A. Vernon, M. Waggoner.

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)

B. Wilson, Head. R. Al-Mabuk, T. Berg, L. Brown, C. Dedrick, J. Duce, S. Fortgang, L. Froyen, S. Gable, V. Hash, M. Heston, L. Kavich, K. Lee, C. Means, C. Montecinos, P. Porter, B. Reppas, B. Rogers, D. Schmits, R. Scott, J. Smith, M. Strathe.

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.

English Language and Literature

(College of Humanities and Fine Arts)

M. Rohrberger, Head. K. Baughman, K. Butler-Nalin, D. Cahill, G. Cavelli, J. Copeland, G. Day, B. DeHoff, R. Fehman, R. Frasca, S. Gaies, R. Gish, J. HiDuke, G. Hovel, T. Hovel, G. Hubly, M. Janopoulos, V. Johnson, E. Kalmar, N. Kaylor, J. Klinkowitz, B. Lounsbury, C. Ogbondah, P. Pisarik, N. Price, L. Rackstraw, T. Remington, J. Robbins, C. Roberts, C. Shields, A. Swensen, J. Swope, R. Utz, R. J. Ward, R. Wilson, S. Witt.

English Major

- Required:
- English: 62:034; 62:048; 62:053.....9 hours
 - One of the following courses.....3 hours
 - English: 62:103, 62:104, 62:105, 62:174, 62:175, or Journalism: 66:140.
 - One of the following courses.....3 hours
 - Linguistics: 63:125 or 63:130.
 - Electives in English literature, at least one course from each group.....21 hours
 - *Within each group, other appropriate topics may be offered in sections of 62:159, 62:186, 62:188 which will be so designated in the "Schedule of Classes".
 - *Group A. Early British Literature: 62:113, 62:116, 62:117.
 - *Group B. Later British Literature: 62:118, 62:119, 62:156.
 - *Group C. American Literature: 62:121, 62:123, 62:153.
 - *Group D. Modern Literature: 62:115, 62:120, 62:124, 62:126, 62:134.
 - *Group E. Major Writer Courses: 62:144, 62:147, 62:148.
 - *Group F. Comparative Literature and Special Topics: 62:112, 62:128, 62:155, 62:161, 62:188.
 - Electives in English language, literature or writing.....6 hours
- 42 hours

English Major—Teaching

- Required:
- English: 62:034; 62:048; 62:053; 62:165; 62:190; 62:191; 62:193.....19 hours
 - One of the following courses.....3 hours
 - English: 62:103, 62:104, 62:105, or Journalism: 66:140.
 - Linguistics: 63:125 or 63:130.....3 hours
 - One of the following courses.....3 hours
 - Linguistics: 63:143, 63:190, or 63:195.
 - Reading: 23:130.....3 hours
 - Communication and Theatre Arts: 50:023.....3 hours
 - Electives in English literature, at least one course from each group.....12 hours
 - *Within each group, other appropriate topics may be offered in sections of 62:159, 62:186, 62:188 which will be so designated in the "Schedule of Classes."
 - *Group A. Early and Later British Literature: 62:113, 62:116, 62:117, 62:118, 62:119, 62:156.
 - *Group B. American Literature and Modern Literature: 62:115, 62:120, 62:121, 62:123, 62:124, 62:126, 62:134, 62:153.
 - *Group C. Major Writer Courses, Comparative Literature, Special Topics: 62:112, 62:128, 62:144, 62:147, 62:148, 62:155, 62:161, 62:188.
 - Electives in English language, literature, or writing.....3 hours
- 49 hours

Note: Prerequisites for student teaching in English are a grade point average of 2.50 in English major courses and a grade of C or better in 62:190.

Teaching English to Speakers of Other Languages (TESOL) Major

- Required:
- English: 62:034; 62:048; 62:053.....9 hours
 - One of the following four courses: 62:103; 62:104; 62:105; 62:193.....3 hours
 - Linguistics: 63:125 or 63:130; 63:135 or 63:160.....6 hours
 - Linguistics: 63:154; 63:156; 63:165; 63:192; 63:193; 63:194; 63:196.....21 hours
 - Electives in literature or linguistics.....3 hours
- 42 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 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

Student teaching at both the K-6 and 7-12 levels is required to earn the ESL K-12 endorsement on an Iowa teaching license.

- Required:
- English: 62:034; 62:048; 62:053.....9 hours
 - One of the following four courses: 62:103; 62:104; 62:105; 62:193.....3 hours
 - Linguistics: 63:125 or 63:130; 63:135 or 63:160.....6 hours
 - Linguistics: 63:154; 63:156; 63:165; 63:192; 63:193; 63:194; 63:196.....21 hours
 - Electives in literature or linguistics.....3 hours
- 42 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 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 College of Business Administration. It is under the jurisdiction of the Departments of English Language and Literature, Management, and Communication and Theatre Arts. The minor requires a 12-hour core plus six (6) hours from one of three emphases.

- Required core:
- Communication and Theatre Arts: 50:138; 50:163.....6 hours
 - English Language and Literature: 62:104; 62:105.....6 hours
- Required: six (6) hours from one of three emphases below.....6 hours
- 18 hours

Emphases—

Business

Management: 15:113; 15:114.

Communications

Communication and Theatre Arts: 50:183; 50:184; 50:185.

English

Two of the following—
Journalism: 66:102; 66:141; 66:150.

English Language and Literature/ English/Modern Language Programs

English Minor

Required:

English: 62:034; 62:048; 62:053.....	9 hours
Linguistics: 63:125 or 63:130.....	3 hours
Electives in literature, one course from each group.....	9 hours

*Within each group, other appropriate topics may be offered in sections of 62:159, 62:186, 62:188 which will be so designated in the "Schedule of Classes".

*Group A. Early and Later British Literature: 62:113, 62:116, 62:117, 62:118, 62:119, 62:156.

*Group B. American Literature and Modern Literature: 62:115, 62:120, 62:121, 62:123, 62:124, 62:126, 62:134, 62:153.

*Group C. Major Writer Courses, Comparative Literature, Special Topics: 62:112, 62:128, 62:144, 62:147, 62:148, 62:155, 62:161, 62:188.

21 hours

English Minor—Teaching

Required:

English: 62:034; 62:048; 62:053; 62:165; 62:190; 62:193.....	18 hours
Linguistics: 63:130.....	3 hours
Reading: 23:130.....	3 hours
Communication and Theatre Arts: 50:023.....	3 hours
Electives in literature, to include at least 3 hours of 100-level courses.....	6 hours

33 hours

A minimum cumulative grade point average of 2.40 in courses taken to complete this minor is required.

Journalism Minor

Required:

Journalism: 66:032; 66:040; 66:110; 66:140; 66:150; 66:160.....	16 hours
Electives: at least 6 hours from the following courses.....	6 hours
Group A: (3-6 hours) 66:102; 66:103; 66:110; 66:131; 66:132; 66:141; 66:147.	
Group B: (0-3 hours):	
Educational Media: 24:147.	
Industrial Technology: 33:169.	
Art: 60:032.	

22 hours

Journalism Minor—Teaching

Required:

Journalism: 66:032; 66:040; 66:110; 66:140; 66:150; 66:160.....	16 hours
Electives: at least 3 hours from the following courses.....	3 hours
Educational Media: 24:147.	
Industrial Technology: 33:169.	
Art: 60:032.	
Journalism: 66:102; 66:103; 66:110; 66:131; 66:132; 66:141; 66:147.	

19 hours

Teaching English to Speakers of Other Languages (TESOL) Minor

Required:

Linguistics: 63:125 or 63:130; 63:135 or 63:160; 63:154; 63:165; 63:192; 63:193; 63:194; 63:196.....	24 hours
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Teaching English to Speakers of Other Languages (TESOL) Minor—Teaching

Required:

Linguistics: 63:125 or 63:130; 63:135 or 63:160; 63:154; 63:165; 63:192; 63:193; 63:194; 63:196.....	24 hours
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Note: To earn the ESL K-12 endorsement on an Iowa teaching license, stu-

dent teaching in an ESL classroom at both the K-6 and 7-12 levels is required. A person selecting a TESOL Minor—Teaching must also complete an endorsement in another area.

Writing Minor

Required core:.....

English Language and Literature: 62:015; 62:163; two of the following: 62:103, 62:104, 62:105.	12 hours
Choose ONE emphasis.....	6 hours
1. Creative Writing 62:070; one of the following: 62:174, 62:175.	
2. Writing Pedagogy 62:193; one of the following: 62:194, 63:165.	
3. Professional Writing/Publishing Six hours from the following: 33:070, 62:105, 66:140, 66:141.	

18 hours

This minor program is designed to recognize and establish the possibility of gaining a basic background in producing printed texts and in exploring theoretical aspects of writing. Further, the minor adds to this background opportunity to emphasize one of three special areas of writing: creative writing, writing pedagogy, or professional writing and publishing. These three areas offer significant applications of writing skills and additional preparation for further writing activity, whether as an imaginative or professional writer or as a teacher of writing.

English/Modern Language Programs

TESOL/Modern Language Major—Teaching (Extended Program)

Student teaching at both the K-6 and 7-12 levels is required to earn the ESL K-12 endorsement on an Iowa teaching license.

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 or 63:160; 63:154; 63:165; 63:192; 63:193; 63:194; 63:196.....	24 hours
30 hours from one of the language emphases below.....	30 hours
	60 hours

Emphases—

French:
Languages: 70:190.
French: 72:011; 72:051 (3 hrs.); 72:061 (2 hrs.); 72:101; 72:104; 72:108; 72:124 or 72:125; 72:180; at least one French literature course.

German:
Languages: 70:190.
German: 74:011 (5 hrs.); 74:052 (3 hrs.); 74:062 (2 hrs.); 74:101; 74:104; 74:107; 74:123; 74:180; and electives in German more advanced than 74:002 to make 30 hours.

Spanish:
Languages: 70:190.
Spanish: 78:052 (3 hrs.); 78:062 (2 hrs.); 78:101; 78:104; 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
 18 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 62:144, 62:147,
 62:148).

*For Non-Foreign Language Majors—
 Languages: 70:180.
 French: 72:070 or 72:104; or
 German: 74:070 or 74:104; or
 Spanish: 78:104.
 Electives in 100-level foreign language literature courses
 (6 hours).
 A reading knowledge of one foreign language is required.

Finance

(College of Business Administration)

A. Thompson, Head. A. Cox, H. Isakson, G. Mills, G. Moore, A. Okuruwa, A. Rappaport, R. Wyatt.

Note: Students who wish to major in Finance are considered Pre-Finance majors until they meet the College of Business Administration admissions requirements, after which time they may declare their major. Students will not be permitted to declare a double major, double minor, and/or a major and minor within the College of Business Administration. (The Economics major and minor and the Business Communications and teaching programs are exceptions.) Pre-Finance majors are only allowed to take lower-level (below 100) courses from the College of Business Administration. Finance majors must complete the College of Business admission requirements and have junior standing in order to take 100-level College of Business Administration courses. (A copy of the admission requirements may be obtained from the Advising Center in the College of Business Administration.) To graduate with a major in Finance from the College of Business Administration a student must complete 12:030, 12:031, 92:020, 92:053, 92:054, and 92:070 with at least a C- in each course whether taken at UNI or an institution from which transfer credit for these courses is accepted; must earn a 2.20 cumulative grade point average at UNI; and must earn an overall 2.20 grade point average in 12:xxx, 13:xxx, 15:xxx, 16:xxx, and 92:xxx courses taken at UNI.

Finance Major

Background Business Core.....39 hours

Accounting: 12:030; 12:031.
 Marketing: 13:101.
 Management: 15:080; 15:100; 15:153; 15:154; 15:175.
 Finance: 16:151.
 Economics: 92:020; 92:053; 92:054; 92:070.

Option A or Option B below18 hours

Finance Major, Option A — General Finance:

Required: (12 hours)
 Finance: 16:150; 16:152; 16:154; 16:155.
 Plus two of the following: (6 hours)
 Finance: 16:141; 16:156; 16:158; 16:162.
 Economics: 92:113.

Finance Major, Option B — Real Estate Emphasis:

Required Finance Core: (6 hours)
 Finance: 16:155.
 Plus either 16:150 or 16:154 (selection requires permission of
 Advisor).

Plus Real Estate Emphasis: (12 hours)
 Finance: 16:140; 16:141; 16:142; 16:143.

57 hours

English/Modern Language Programs/ Finance/Geography

Geography

(College of Social and Behavioral Sciences)

P. Suckling, Head. C. Austin, R. Chung, R. Clark, D. Dahms, T. Fogarty, J. Fryman, D. May.

Geography Major

Required:
 Geography: 97:010 or 97:0403 hours
 97:0264 hours
 97:0613 hours
 97:1803 hours
 Mathematics: 80:072 or 80:172 or
 Sociology: 98:0803 hours
 Electives in geography21 hours*
 37 hours

Note: For the geography major, either 97:010 or 97:040 shall be taken; the course not selected may not be counted towards fulfilling the 21 hours of electives in geography.

*Other programs occasionally offer courses appropriate to the geography major. The Department of Geography will approve substituting up to two such courses for electives in Geography. Note that only 3 hours of credit in 97:177 or 97:179 will count toward electives for the major.

Geography Major—Teaching (Extended Program)

Required:
 Social Science: 90:1903 hours
 Geography: 97:0103 hours
 97:0403 hours
 97:0264 hours
 97:0613 hours
 97:141 or 97:1423 hours
 Electives in geography18 hours*
 37 hours

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

*Other programs occasionally offer courses appropriate to the geography major. The Department of Geography will approve substituting up to two such courses for electives in Geography. Note that only 3 hours of credit in 97:177 or 97:179 will count toward electives for the major.

Geography Minor—Liberal Arts or Teaching

Required:
 Geography: 97:010 or 97:0403 hours
 97:0264 hours
 Electives in geography17-18 hours*
 24-25 hours

*For Liberal Arts, six of the elective hours may be taken in cognate subjects (other than the student's major) as approved by the Geography Department Head. For Teaching, all 17-18 elective hours must be taken in geography. Only 3 hours of credit in 97:177 or 97:179 will count toward electives for the minor.

Program Certificate

For information on the following Program Certificate, contact the department office.

Cartography and Geographic Information Systems Certificate

School of Health, Physical Education, and Leisure Services (College of Education)

C. Edginton, Director. I. Ahrabi-Fard, M. Carter, C. Cooper, D. Cryer, T. Davis, F. Dolgener, S. Doody, C. Ensign, D. Erusha, P. Fultz, P. Geadelman, K. Green, W. Green, J. Hall, N. Hamilton, C. Hanson, G. Henry, L. Hensley, S. Huddleston, D. Jordan, S. Joslyn, K. Kerr, S. Koch, F. Kolkhorst, W. Lawson, R. Long, J. Marsh, R. Marston, C. Martinez, D. McDonald, J. Mertesdorf, J. Noble, C. Phillips, D. Rimmert, J. Richards, W. Ryan, L. Schwarzenbach, T. Soldan, D. Thompson, J. Wilson.

Community Health Education Major

Required.....49-56 hours

- Management: 15:153.
- Educational Media: 24:131.
- Measurement and Research: 25:180 or
- Mathematics: 80:072.
- Counseling: 29:105.
- Design, Family and Consumer Sciences: 31:032.
- Library Science: 35:112.
- Health: 41:005; 41:060; 41:153; 41:156; 41:158; 41:160;
- 41:163; 41:164; 41:168; 41:176.
- Physical Education: 42:050 or
- Biology: 84:030.
- Communication and Theatre Arts: 50:163.
- Political Science: 94:132.

Electives: to be chosen from the following list.....9-16 hours
65 hours

- Accounting: 12:030.
- Marketing: 13:101.
- Educational Psychology: 20:138; 20:142.
- Design, Family and Consumer Sciences: 31:037; 31:052; 31:055; 31:057;
- 31:130; 31:153; 31:155; 31:158; 31:177.
- Psychology: 40:008; 40:123; 40:158; 40:160; 40:161; 40:170; 40:173.
- Health: 41:011; 41:015; 41:020; 41:120; 41:125; 41:146; 41:162.
- Physical Education: 42:153; 42:156.
- Social Work: 45:121; 45:164; 45:171; 45:172;
- 45:173; 45:174.
- Communication and Theatre Arts: 50:108.
- Philosophy: 65:142.
- Humanities: 68:194.
- Sociology: 98:058; 98:060; 98:105.
- Anthropology: 99:168.

Health Education Major— Teaching

Required.....38-39 hours

- Educational Psychology: 20:118.
- Measurement and Research: 25:180 or
- Mathematics: 80:072.
- Design, Family and Consumer Sciences: 31:032; 31:057.
- Psychology: 40:170.
- Health: 41:005; 41:011; 41:140; 41:144; 41:153; 41:160;
- 41:163; 41:164; 41:176.
- Physical Education: 42:050 or
- Biology: 84:030.

Electives—a minimum of three (3)
hours from the following list.....3-4 hours
42 hours

- Educational Psychology: 20:116; 20:142; 20:151.
- Measurement and Research: 25:181.
- Safety Education: 30:030.
- Design, Family and Consumer Sciences: 31:052; 31:053; 31:055; 31:155.
- Health: 41:020; 41:060; 41:120; 41:146; 41:162.
- Physical Education: 42:153.
- Humanities: 68:194.

Athletic Training Minor

Required.....29-30 hours

- Design, Family and Consumer Sciences: 31:032.
- Health: 41:011; 41:015; 41:018; 41:177; 41:182; 41:183; 41:184;
- 41:187 (4 hrs.).
- Physical Education: 42:151; 42:153.
- Physical Education: 42:050 or
- Biology: 84:030.

Community Health Education Minor

Required:

- Health: 41:060; 41:153; 41:156; 41:158; 41:160;
- 41:163; 41:164; 41:17618 hours
- Electives in health education to be chosen from
the following list4 hours
22 hours

- Accounting: 12:030.
- Educational Psychology: 20:138; 20:142.
- Design, Family and Consumer Sciences: 31:037; 31:052; 31:055; 31:057;
- 31:130; 31:153; 31:155; 31:158; 31:177.
- Psychology: 40:008; 40:123; 40:158; 40:160; 40:161; 40:170;
- 40:173.
- Health: 41:011; 41:015; 41:020; 41:120; 41:125;
- 41:146; 41:162.
- Physical Education: 42:050; 42:153; 42:156.
- Social Work: 45:121; 45:164; 45:171; 45:172;
- 45:173; 45:174.
- Communication and Theatre Arts: 50:108.
- Philosophy: 65:142.
- Humanities: 68:194.
- Biology: 84:030.
- Sociology: 98:058; 98:060; 98:105.
- Anthropology: 99:168.

Health Education Minor— Teaching

Required.....25 hours

- Educational Psychology: 20:118.
- Design, Family and Consumer Sciences: 31:032; 31:057.
- Psychology: 40:170.
- Health: 41:011; 41:135 (for K-6 endorsement) or 41:140
(for 7-12 endorsement); 41:144; 41:153; 41:160; 41:164.

Electives—a minimum of 1 hour from the following list.....1 hour

- Health: 41:020; 41:060; 41:120; 41:138; 41:142; 41:146;
- 41:148; 41:158; 41:162; 41:163; 41:176.

26 hours

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.....34 hours

- Health: 41:018.
- Physical Education: 42:041; 42:043; 42:044; 42:050; 42:055;
- 42:122; 42:151; 42:152*; 42:153; 42:160; 42:163; 42:174*;
- 42:176.

Required fundamental physical activities**10 hours

- Physical Education: 42:011 (1 hr.); 42:012 (1 hr.); 42:013 (2 hrs.);
- 42:014 (1 hr.); 42:015 (3 hrs.); 42:016 (2 hrs.).

Required advanced skill and coaching theory2-3 hours

- Physical Education—one course from: 42:101; 42:102; 42:104;
- 42:105; 42:107; 42:108; 42:109; 42:110; 42:111;
- 42:112; 42:113.

Required electives of 4 hours from 42:0xx or 42:1xx courses4 hours
50-51 hours

*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 and 25:050.

**Current Certification in Red Cross FA/CPR required for assignment to student teaching.

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 are not teaching majors will qualify for the Department of Education coaching authorization.

Required:

Educational Psychology: 20:030	3 hours
Health: 41:018	2 hours
Physical Education: 42:024; 42:025; 42:118; 42:122; 42:127	9 hours
Electives: 4-6 hours from: 42:101; 42:102; 42:104; 42:105; 42:107; 42:108; 42:109; 42:110; 42:111; 42:112; 42:113	4-6 hours 18-20 hours

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 activities7 hours

Physical Education: 42:A07 Beginning Ballet or 42:A52 Intermediate Ballet; 42:A13 Beginning Jazz or 42:A57 Intermediate Jazz; 42:A08 Beginning Ballroom Dance or 42:A09 Intermediate Ballroom Dance; 42:A11 Beginning Modern Dance or 42:A12 Intermediate Modern Dance; 42:A10 Beginning International Folk Dance or 42:032 Intermediate International Folk Dance; 42:013 Folk, Square, Ballroom Dance; 42:013 Rhythm in Movement, Sport and Dance.

Required Theory.....5 hours

42:024; 42:034.

Electives in Dance.....6 hours

42:031; 42:035; 42:132; 42:135; 42:140; 42:146; 42:168.

Electives:.....3 hours

Selected to complement student's interest with the approval of the dance minor advisor from the following areas: Art, Communication and Theatre Arts, Design, Family and Consumer Sciences, Educational Media, Health, Humanities, Music, Physical Education, Leisure Services. Required courses from a student's major may not be included.

21 hours

Physical Education Minor—Elementary Teaching

This physical education minor is designed for students who are elementary majors receiving K-6 endorsement. Students are encouraged to seek advisement from the elementary physical education staff prior to scheduling.

Required.....17 hours

42:041; 42:043 or 42:044; 42:045; 42:050; 42:055* or 42:145*;
42:151; 42:152.

Required physical activities.....5 hours

42:012; 42:013 (2 hrs.); 42:014; 42:016.

Electives.....4 hours

Physical Education: 42:132; 42:140; 42:153; 42:156; 42:174; 42:176.

Communication and Theatre Arts: 50:130.

Music: 52:102.

26 hours

*42:055 or 42:145 may be taken as an elective if not taken as a requirement.

Leisure Services Major

Students must have a 2.00 grade point average to declare a Leisure Services major. Leisure Services majors are required to have a 2.00 UNI 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. Leisure Services majors should note other prerequisites for 43:187.

Required44 hours

Leisure Services: 43:010; 43:020; 43:030; 43:110; 43:114; 43:120*; 43:122; 43:168; 43:169; 43:184; 43:187; 43:189.

Two courses from the following6 hours

Leisure Services: 43:152+.
Management: 15:119.
Political Science: 94:132; 94:148.
Psychology: 40:160.

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

*43:120 not required of Youth Agency Administration.

+Students in Youth Agency Administration should select two courses other than 43:152.

Areas:

Aquatics—

- Physical Education: 42:024; 42:025; 42:120.
- Required competency: current WSI certification.
- Electives: 6 hours from—
Physical Education/Leisure Services: 42:001 or 42:011 (advisor approved aquatic activity courses); 42:109; 42:157; 42:168 (aquatics); 43:112.

Cultural Arts—(Art, Dance, Music, Theatre)

Student must take a minimum of 12 hours in one area or six hours in each of two areas. (Elective courses will be selected in consultation with student's Major advisor.)

Fitness—

- Physical Education: 42:050; 42:153; 42:156.
- Electives: 4 hours from—
Design, Family and Consumer Sciences: 31:030.
Health/Physical Education/Leisure Services: 41:011; 41:172; 42:001 (aerobic dance, weight lifting, conditioning); 42:012; 43:165.

Outdoor Recreation/Education—

Leisure Services: 43:142; 43:143; 43:145; 43:146.

Sports—

- Physical Education/Leisure Services: 42:024; 42:025; 43:112;
3 hours from 42:011, 42:012, 42:014, 42:015, 42:016.
- Electives: 3 hours from—
Health/Physical Education: 41:018; 42:101-113; 42:127; 42:168.

Youth Agency Administration—

Leisure Services: 43:150; 43:151; 43:152; 43:153; 3 credit hours in one of the above five elective 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 Therapeutic Recreation major. Therapeutic Recreation majors are required to have a 2.00 UNI 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. Therapeutic Recreation majors should note other prerequisites for 43:187.

Required.....56 hours

Design, Family and Consumer Sciences: 31:055 or
Psychology: 40:120.
Leisure Services: 43:010; 43:020; 43:030; 43:110; 43:114;
43:123; 43:160; 43:163; 43:167; 43:168; 43:169; 43:184;
43:187; 43:189.

Physical Education: 42:050.

Required.....12 hours

A minimum of four courses to total 12 hours, with two courses from two categories (1, 3, 4, and/or 5), and two or more courses from any of the six categories.

68 hours

1. Sociology:

- Social Work: 45:121 (or 98:121); 45:143; 45:171;
45:172; 45:173; 45:174; 45:175.
- Humanities: 68:194.
- Sociology: 98:058*; 98:060; 98:123; 98:125; 98:127; 98:169.

Health, Physical Education and Leisure Services/History

2. Psychology:

Educational Psychology: 20:140.
 Psychology: 40:008*; 40:123; 40:125; 40:127; 40:142;
 40:157; 40:166; 40:170; 40:173.

3. Special Education:

Special Education: 22:050; 22:153.

4. Human Services:

Counseling: 29:105; 29:112; 29:124; 29:250.
 Health: 41:120; 41:146.
 Communicative Disorders: 51:101; 51:170.
 Philosophy: 65:142.

5. Adapted Physical Education:

Health/Physical Education: 41:172; 42:152; 42:156; 42:157.

6. Physical Education:

Physical Education: 42:151; 42:153.

* Recommended elective to complete degree requirement in 124 credit hours.

Program Certificate

For information on the following Program Certificate, contact the Leisure Services Division.

Youth Agency Administration Certificate

History

(College of Social and Behavioral Sciences)

J. Johnson, Head. G. Bruess, H. Cheng, J. Eiklor, J. Goldman, C. Holcombe, J. Lees, D. Maier, R. Martin, D. McKibbin, C. Morgan, R. Newell, R. Neymeyer, T. O'Connor, C. Quirk, T. Ryan, R. Sandstrom, D. Shepardson, R. Talbott, D. Walker, C. Weisenberger, S. Williams, H. Wohl.

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, and 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/Soviet Area Studies.

Required core courses.....25 hours

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 advisor (6 hours outside of history).

Foreign Language component*.....22 hours

22 hours beyond first-year French, German, Portuguese, Russian or Spanish, to include:

French: 72:101; 72:104; 72:124 or 72:125.

or

German: 74:101; 74:104; 74:123 or 74:150.

or

Russian: 77:101; 77:102; 77:141.

or

Spanish: 78:101; 78:104; 78:123.

or

Portuguese: 79:101; 79:104; 79:123. To include 4 hours from 79:091; 79:186; 79:191; 79:198.

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.

47 hours

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

History Major—Liberal Arts

Required:*

History: 96:010 (this course must be taken immediately after

major is declared); 96:014; 96:015; 96:054; 96:055

(014, 015, 054, and 055 must be taken by the end of the

sophomore year); 96:193.....18 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

42 hours

History Major—Teaching

Required:*

Social Science: 90:190.....3 hours

History: 96:010 (this course must be taken immediately

after major is declared); 96:014; 96:015; 96:054;

96:055 (014, 015, 054, and 055 must be taken by the

end of the sophomore year); 96:193.....18 hours

Electives in history: a minimum of 18 hours (to include at

least 6 additional hours of European history and 3 hours

of non-Western history and a minimum of 9 additional

hours of United States history).....18 hours

39 hours

The history major may consider a minor in at least one other social science discipline.

*All History majors must successfully complete 68:021 and 68:022.

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 licensure in American history; or 96:054 and 96:055 for teaching licensure in world history.....6 hours
 - Electives in history: (for teaching licensure in American history, students must take an additional 18 hours in United States history; for teaching licensure in world history, students must take an additional 18 hours in European and non-Western history).....18 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.

Industrial Technology

(College of Natural Sciences)
 M. Fahmy, Head. R. Betts, E. Dennis, H. Egger, J. Fecik, S. Helzer, G. Hoppes, C. Johnson, D. Pine, G. Shrestha, A. Tolu Honary, S. Varzavand, J. Wheatley, M. White.

Bachelor of Science Degree Program

— 130 semester hours

Electro-Mechanical Systems Major (Extended Program)

Required core.....34 hours

- Industrial Technology: 33:036; 33:037; 33:038; 33:126; 33:129; 33:152; 33:156; 33:157; 33:162; 33:172; 33:174; 33:176.

Choose one of the two options below.....43-44 hours
 77-78 hours

Industrial Supervision and Management Option

Mathematics and science.....25 hours

- Mathematics: 80:048; 80:072.*
- Computer Science: 81:070.
- Chemistry: 86:020.
- Physics: 88:054*; 88:056.

Note: Electro-Mechanical Systems Technology majors must complete one 3-hour 100-level cognate area (Math and Science) course.

Industrial supervision and management core.....13 hours

- Accounting: 12:030.
- Marketing: 13:101.

Industrial Technology: 33:143; 33:187.

Technical electives: students must complete a minimum of 5-6 semester hours of credit from the following courses.....5-6 hours

- Industrial Technology: 33:017; 33:122; 33:139; 33:147; 33:160; 33:164; 33:166; 33:170.

Engineering Technology Option

Mathematics and science.....23 hours

- Mathematics: 80:060; 80:061.
- Chemistry: 86:020.
- Physics: 88:054*; 88:056.

Note: Electro-Mechanical Systems Technology majors must complete one 3-hour 100-level cognate area (Math and Science) course.

Advanced technical courses.....8 hours

Industrial Technology: 33:139; 33:160; 33:164.

Technical electives: select 12 hours from the following courses

- 33:166 (recommended).....12 hours
- Industrial Technology: 33:017; 33:122; 33:147; 33:166; 33:170.
- Mathematics: 80:072*.
- Physics: 88:134.

*Course may be taken as General Education.

Bachelor of Technology Degree Programs

— 130 semester hours

Construction Management Major (Extended Program)

Required core.....48 hours

- Industrial Technology: 33:016; 33:018; 33:025; 33:027; 33:033; 33:045; 33:050; 33:100; 33:128; 33:149; 33:153; 33:154; 33:170; 33:173; 33:175; 33:185; 33:196.

Accounting: 12:030; 12:031.....6 hours

Marketing: 13:101.....3 hours

Management: 15:080; 15:101; 15:145; 15:153.....11 hours

Mathematics: 80:048.....4 hours

Chemistry: 86:020.....4 hours

Physics: 88:054; 88:056.....8 hours

Economics: 92:020; 92:024.....6 hours

90 hours

Manufacturing Technology Major

Mathematics/Science Core.....22 hours

- Industrial Technology: 33:119 or Computer Science: 81:070.
- Mathematics: 80:048; 80:072*.
- Chemistry: 86:020.
- Physics: 88:054*; 88:056.

Management Core.....11 hours

Management: 15:153.

Industrial Technology: 33:112; 33:143; 33:187.

Technical Core.....24 hours

Industrial Technology: 33:007; 33:008; 33:017;

33:024; 33:060; 33:132; 33:170; 33:197.

Concentration: choose one of the three concentrations below.....22-24 hours

79-81 hours

Automation and Production Concentration (22 hours)

Industrial Technology:

Required: 33:113; 33:145; 33:146; 33:147; 33:162.

Select 9 semester hours from remaining courses: 33:041; 33:121; 33:130; 33:134; 33:152; 33:177.

Computer-Aided Drafting and Design Concentration (23 hours)

Industrial Technology: 33:106; 33:110; 33:113; 33:118;

33:122; 33:148; 33:162; 33:172.

Metal Casting Concentration (24 hours)

Industrial Technology: 33:126; 33:134; 33:138; 33:145;

33:152; 33:160; 33:177; 33:179 (3 hrs.); 33:192.

*Course may be taken as General Education.

**Industrial Technology/
Interdisciplinary Majors and Minors**

**Bachelor of Arts Degree
Programs**

— 124 semester hours

**General Industry and
Technology Major**

Required.....44-45 hours
 Management: 15:153.
 Industrial Technology: 33:007; 33:008; 33:018; 33:022; 33:036;
 33:114; 33:172; 33:187; 33:196.
 English: 62:105.
 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; 33:055; 33:119; 33:143;
 33:145; 33:16915 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 (4 hrs.).
 Physics: 88:052.
 Business and Management19-20 hours
 Management: 15:153.
 Industrial Technology: 33:179 (3 hrs.); 33:187; 33:194; 33:196.
 English Language and Literature: 62:105.
 Electives: (Must complete one of the following)
 Marketing: 13:101.
 Industrial Technology: 33:143.
 Technical.....29 hours
 Industrial Technology: 33:020; 33:022; 33:055; 33:070;
 33:150; 33:158; 33:169.
 Electives: (Must complete 6 hours from the following)
 33:017; 33:118; 33:161; 33:163; 60:125.
 60-61 hours
 Note: 80:072 and 92:024 are needed as prerequisites. Both of these prerequisites may be taken as part of the general education program.

**Technology Education
Major—Teaching**

Required:
 Mathematics—Science.....8 hours
 Mathematics: 80:040.
 Physics: 88:011.
 Technical courses required21 hours
 Industrial Technology: 33:007; 33:008; 33:018; 33:022; 33:036;
 33:114; 33:178.
 Technical electives13 hours
 Department professional requirements.....12 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: 33:007; 33:008; 33:022; 33:036; 33:196 ..15 hours
 Electives in Industrial Technology9 hours
 24 hours

**Graphic Communications
Minor**

Required:
 Industrial Technology: 33:022; 33:055; 33:070; 33:169; 33:196 ..17 hours
 Electives selected from: 33:017; 33:118; 33:161; 33:163.....7 hours
 24 hours

**Technology Education
Minor—Teaching**

Required:
 Industrial Technology: 33:007; 33:008; 33:018; 33:022; 33:036;
 33:114; 33:120; 33:190; 33:19528 hours

**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.....36 hours
 English Language and Literature: 62:052.
 Political Science: 94:014.
 History: 96:014; 96:015; 96:144.
 Plus additional electives from the four areas above
 for a total of 36 hours.
 Required: a senior colloquium*3 hours
 39 hours

The courses from the four specified areas must be chosen in consultation with an advisor 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.

Interdisciplinary Majors and Minors

Courses used to meet General Education requirements may not be counted on this major.

Asian Studies Major

Required:

Humanities: 68:124; 68:125	6 hours
Economics: 92:053	3 hours
Political Science: 94:011	3 hours
History: 96:182; 96:187	6 hours
Anthropology: 99:011	3 hours

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

Art: 60:147.

Religion: 64:130; 64:132; 64:134.

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: 94:162; 94:163; 94:168.

History: 96:181; 96:183.

Geography: 97:119; 97:141.

Anthropology: 99:136; 99:165.

39 hours

Asian Studies Minor

Required:

Humanities: 68:124; 68:125	6 hours
68:198 (to be supervised by the Asian Studies Committee) combining Asian Studies and the student's major discipline	3 hours

One additional course each in China and India (to be chosen from the list of Asian Studies Major electives)6 hours
15 hours

Note: The programs and general courses in the non-Western foreign area studies are offered under the jurisdiction of the Committee on Asian Studies and the general supervision of the Dean of the College of Social and Behavioral Sciences.

Environmental Perceptions Minor

This is an interdisciplinary minor offered under the jurisdiction of the Environmental Perceptions Committee and the general supervision of the Dean of the College of Natural Sciences.

Required.....9 hours

Philosophy: 65:170.

Humanities: 68:189.

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.....12 hours

21 hours

*A list of approved courses is available in the Office of the Dean of the College of Natural Sciences.

This minor allows students a specific program to complement their major. Because the Environmental Perceptions Minor is planned to broaden students' awareness of environmental issues as they relate to their major discipline, students interested in this minor should have a clear grasp of the major field before applying for such a minor.

Applications and approval of particular programs will be administered under the College of Natural Sciences, with the interdisciplinary Environmental Perceptions Committee serving as the program coordinating

body. Upon application by the student, the Dean of the College of Natural Sciences will appoint a faculty advisor from the Environmental Perceptions Committee to work closely with the student in planning his or her minor. Approval of the minor prospectus is the responsibility of the Environmental Perceptions Committee.

General Studies Major

This is a diversified liberal arts major supervised by the Administrator of the Individual Studies Program. The major 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 colleges* for a minimum total of.....45 hours

A **General Studies major** enables students to take a wide variety of courses from many different departments. This can lead to a well-rounded liberal arts education. The major is not directed toward any particular vocation or certification. The emphasis of this major is on distribution rather than concentration. Each General Studies major is encouraged to develop a program of study according to his/her own needs, interests, and career goals. The selection of courses is largely left to the student. Students may *not* declare a second major and be registered for the General Studies major.

*The five colleges are: 1) College of Business Administration; 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 7 for a list of the departments under each college.

(See page 32 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 Advisor, will outline a cohesive program of cross-disciplinary study around a chronological period, theme, culture, or other focus of the student's choice.

All reasonable variations on this program should be approved.

Humanities Minor

This is an interdisciplinary minor offered by the College of Humanities and Fine Arts, and is under the jurisdiction of the dean of that college.

Required: a minimum of 21 hours with at least one course* to be chosen from each of the following areas—

Humanities: 68:021; 68:022; 68:168.

English:

English Language and Literature: 62:034.

Arts (participatory):

Communication and Theatre Arts: 50:031; 50:050.

Applied Music: 54:Nxx (instrument or voice).

Art: 60:002 or 60:004.

English Language and Literature: 62:070.

Philosophy and Religion: 64:124; any one of 65:100, 65:101, 65:103 or 65:104.

Social Science:

Psychology: 40:118.

Sociology: 98:060.

Anthropology: 99:011.

Science: 82:175.

Interdisciplinary Studies:

Individual Studies: 00:196** (Interdisciplinary Readings).

Humanities: 68:192.

Interdisciplinary Majors and Minors

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

Under the direction of the Individual Studies Program Administrator, this major 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.)	

If it is found the university does not offer the major desired, it may be possible, through the Individual Studies Program, for a student to create his/her own program of study. The purpose of the Individual Studies major is twofold: 1) to enable a student to design an individualized major by selecting courses from several academic departments, and 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. A student shall consult first with the Individual Studies Administrator concerning the feasibility of designing an Individual Studies major in a particular area. If the university does not have faculty or curricular resources for the area requested, the student will be so advised. Also, if the student does not appear to be academically prepared, or if his/her plans are not sufficiently clear, specific steps to correct these problems will be recommended.

Once an advisor is appointed, the student and the advisor will develop a list of 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 advisor 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: 78:052, 78:062, or Portuguese (8 hours): 79:050; 79:060.	
Portuguese/Spanish: 78:104 or 79:104; 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 College of Business Administration.

Required: all of the following language courses	26 hours
Russian: 77:001; 77:002; 77:011; 77:012; 77:103; 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.	
History: 96:169; 96:170.	
Required: two of the following courses	6 hours
Social Foundations: 26:139.	
Philosophy: 65:105.	
Political Science: 94:128; 94:129; 94:157.	
Geography: 97:141 Regional (Soviet) Geography.	
	53 hours

Note: Russian Area Studies majors may not count the course "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 College of Business Administration.

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 92:054 are prerequisites for all 100g-level Economics courses.)	
Political Science: 94:128; 94:164.	
Geography: 97:141.	
	32 hours

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

Women's Studies Minor

This interdisciplinary minor is offered under the jurisdiction and general supervision of the Deans of the Colleges of Social and Behavioral Sciences and Humanities and Fine Arts.

Required:

English Language and Literature: 62:128	3 hours
Humanities: 68:040	3 hours
History: 96:146 or 96:161	3 hours
One of the following three courses	3 hours
Design, Family and Consumer Sciences: 31:057 or Psychology: 40:106 or 40:110.	
Electives from below list of courses chosen in consultation with the Director of the Women's Studies Program for a minimum of	9 hours
	21 hours

List of electives:

Educational Psychology: 20:100. Counseling: 29:114; 29:116. Design, Family and Consumer Sciences: 31:051; 31:052; 31:053; 31:153; 31:154. Psychology: 40:160; 40:173. Health: 41:020. Social Work: 45:041; 45:045; 45:163; 45:194. Communication and Theatre Arts: 50:106; 50:118; 50:127; 50:128; 50:169. Philosophy and Religion: 64:162; 64:165. Humanities: 68:168. Social Science: 90:020. Political Science: 94:142. History: 96:150; 96:156. Sociology: 98:045; 98:060; 98:156; 98:171. Anthropology: 99:011; 99:156; 99:158.
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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.

Management

(College of Business Administration)

D. Power, Head. D. Ashbaugh, F. Bullon, C. Das, T. Frost, C. Frye, L. Goulet, P. Goulet, R. Himschoot, C. Horng, A. Jedlicka, C. Kirk, T. McAdams, R. Minter, F. Moussavi, E. Peterson, R. Roth, M. Rueschhoff, S. Siha, G. Timpany, T. Vaughan, R. Waller, H. Wilson, L. Wilson, W. Wood.

Note: Students who wish to major in Management are considered Pre-Management majors until they meet the College of Business Administration 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 College of Business Administration. (The Economics major and minor, and the Business Communications and Business Teaching minors excepted.) Also, not 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 College of Business Administration. Management majors must complete the College of Business Administration admission requirements and have junior standing in order to take 100-level College of Business Administration courses. (A copy of the admission requirements may be obtained from the Advising Center in the College of Business Administration.) To graduate with a major in Management from the College of Business Administration a student must complete 12:030, 12:031, 92:020, 92:053, 92:054, and 92:070 with at least a C- in each course whether taken at UNI or an institution from which transfer credit for these courses is accepted; must earn a 2.20 cumulative grade point average at UNI; and must earn an overall 2.20 grade point average in 12:xxx, 13:xxx, 15:xxx, 16:xxx, and 92:xxx courses taken at UNI.

Management Major

Required business core.....	39 hours
Accounting: 12:030; 12:031.	
Marketing: 13:101.	
Management: 15:080; 15:100; 15:153;	
15:154; 15:175.	
Finance: 16:151.	
Economics: 92:020; 92:053; 92:054; 92:070.	
Required.....	6 hours
Management: 15:163; 15:165.	
Emphasis Requirements (Choose one area of emphasis).....	12 hours
	57 hours

Emphases:

1. **Business Administration**
 Group I—Choose two of the following three areas:
 a) 15:161 or 15:164.
 b) 15:166.
 c) 16:155.
 Group II—Choose one of the following courses:
 Accounting: 12:131.
 Marketing: 13:106.
 Management: 15:113.
 Economics: 92:160.
 Group III—Choose one of the following courses:
 Any additional course from Group I or
 Management: 15:105; 15:168; 15:187; 15:189.
 Finance: 16:150; 16:156; 16:158.
2. **Human Resource Management**
 Required: (3 hours each)
 Management: 15:105; 15:166.
 Plus at least six hours to be selected from:
 Management: 15:107; 15:130; 15:168; 15:187.
 Economics: 92:116.
3. **Production Management**
 Required: (3 hours each)
 15:161; 15:164; 15:167.
 Plus three hours from the following:
 Accounting: 12:131.
 Management: 15:105; 15:145.

Management Information Systems Major (Extended Program)

Required business core.....	39 hours
Accounting: 12:030; 12:031.	
Marketing: 13:101.	
Management: 15:080; 15:100; 15:153; 15:154; 15:175.	
Finance: 16:151.	
Economics: 92:020; 92:053; 92:054; 92:070.	
Required courses.....	21 hours
Management: 15:112; 15:120; 15:125; 15:140; 15:165.	
Computer Science: 81:081; 81:110.	
Electives: 3 hours from the following.....	3 hours
Management: 15:127; 15:190.	
Computer Science: 81:111; 81:130.	
	63 hours

Business Teaching Major (Extended Major)

Required business core.....	39 hours
Accounting: 12:030; 12:031.	
Marketing: 13:101.	
Management: 15:080; 15:100; 15:153; 15:154; 15:175.	
Finance: 16:151.	
Economics: 92:020; 92:053; 92:054; 92:070.	
Required.....	17 hours
Marketing: 13:106; 13:170.	
Management: 15:075; 15:101; 15:113; 15:191.	
	56 hours

General Business Concepts Minor

Required.....	21 hours
Accounting: 12:030.	
Marketing: 13:101.	
Management: 15:080; 15:100; 15:153.	
Economics: 92:020; 92:024 or equivalent.	

Business Teaching Minor

Required.....	28 hours
Accounting: 12:030; 12:031.	
Marketing: 13:101; 13:106.	
Management: 15:075; 15:080; 15:101; 15:102; 15:191.	
Economics: 92:053.	

Business Communications Minor

This interdisciplinary minor is offered jointly by the College of Business Administration and the College of Humanities and Fine Arts. It is under the jurisdiction of the Departments of Management, English Language and Literature, and Communication and Theatre Arts. The minor requires a 12-hour core plus six (6) hours from one of three emphases.

Required core.....	12 hours
Communication and Theatre Arts: 50:138; 50:163.	
English Language and Literature: 62:104; 62:105.	
Required: six (6) hours from one of three emphases below.....	6 hours
	18 hours

Emphases:

- Business—**
 Management: 15:113; 15:114.
- English—**
 Two of the following courses:
 Journalism: 66:102; 66:141; 66:150.
- Speech—**
 Communication and Theatre Arts: 50:183; 50:184; 50:185.

Management/Marketing/ Mathematics

Program Certificates

For information on the following Program Certificates, contact the department office.

International Business Certificate

Training and Development in Business Certificate

Expanded Career Option for Secondary Teacher Licensure

(Available to non-teaching business majors only.)

Majors in Accounting, Finance, Management, Management Information Systems, and Marketing in the College of Business Administration have the option of receiving secondary teaching licensure to teach in up to five business areas. A student may complete this option by taking the required licensure courses as general university electives. The total number of hours required for licensure will be 44. This will expand the student's program beyond the normal eight semesters. Specific licensure requirements and information about this expanded career option may be obtained from the Department of Management office.

Other Licensure Options:

Additional vocational licensure is available in office education, marketing education, and multi-occupations.

Marketing

(College of Business Administration)

G. Patzer, Head. P. Chao, D. Clayson, S. Corbin, C. Davis, K. Glynn, P. Gupta, M. Klassen, K. Rajendran, M. Rawwas, D. Shepard, N. Wilson.

Note: Students who wish to major in Marketing are considered Pre-Marketing majors until they meet the College of Business Administration 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 College of Business Administration (the Economics major and minor, and the Business Communications and Business Teaching minors excepted). Pre-Marketing majors are only allowed to take lower-level (below 100) courses from the College of Business Administration. Marketing majors must complete the College of Business Administration admission requirements and have junior standing in order to take 100-level College of Business Administration courses. (A copy of the admission requirements may be obtained from the Advising Center in the College of Business Administration.) To graduate with a major in Marketing from the College of Business Administration a student must complete 12:030, 12:031, 92:020, 92:053, 92:054, and 92:070 with at least a C- in each course whether taken at UNI or an institution from which transfer credit for these courses is accepted; must earn a 2.20 cumulative grade point average at UNI; and must earn an overall 2.20 grade point average in 12:xxx, 13:xxx, 15:xxx, 16:xxx, and 92:xxx courses taken at UNI.

Students who major in Marketing are required to devote 40% or more (i.e., 50+ semester hours) of their undergraduate studies to course work outside the College of Business Administration. The rationale is that Marketing majors should include broadening intellectual experiences during their university education, and these are enhanced by enrolling in a variety of rigorous courses offered in liberal arts and in other areas of the university. Recommended areas include computer science, modern languages, statistics, mathematics, oral and written communication, psychology, geography, sociology, philosophy, history, and political science.

Chemistry—Marketing Major

This program is an interdisciplinary major offered by the Department of Chemistry and the College of Business Administration, 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 24 hours of business for a total of 48-51 hours. See page 54 for complete details of the major program.

Marketing Major

Required business core.....	39 hours
Accounting: 12:030; 12:031.	
Marketing: 13:101.	
Management: 15:080; 15:100; 15:153; 15:154; 15:175.	
Finance: 16:151.	
Economics: 92:020; 92:053; 92:054; 92:070.	
Required.....	6 hours
Marketing: 13:106; 13:108.	
Electives: 9 hours from any one of the elective courses listed below.....	9 hours
Required marketing capstone:	
Marketing: 13:191.....	3 hours
	57 hours

Marketing Areas with Elective Courses include:

Product Area - 13:131
Price Area - 13:142
Promotion Area - 13:150; 13:153
Distribution Area - 13:161; 13:166
Marketing Research Area - 13:182; 13:187
International/Global Marketing Area - 13:177
Business-to-Business Marketing Area - 13:176
Services Marketing Area - 13:178
Entrepreneurship Area - 13:172; 13:173
Marketing Field Experience Area - 13:169

Mathematics

(College of Natural Sciences)

J. Haack, Head. D. Baum, J. Bruha, R. Campbell, J. Cross, G. Dotseth, D. Duncan, T. Hardy, A. Jensen, S. Kirmani, M. Lee, L. Leutzinger, B. Litwiller, J. Longnecker, M. Millar, H. Myung, G. Nelson, E. Rathmell, R. Rule, A. Schurrer, V. Sundaraiyer, D. Thiessen, P. Trafton, J. Wilkinson.

Most of the undergraduate major and minor programs in the Department of Mathematics require one or more of the courses: 80:060, 80:061, and 80:062 (Calculus I, II, and III). The course 80:046 (Elementary Analysis) is the prerequisite for 80:060, but may be bypassed by a student who did well in four years of high school college-preparatory mathematics. The course 80:040 (Intermediate Algebra) 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.

Notes:

1. A student majoring or minoring in Mathematics, who has a grade point average of less than 2.25 in all departmental courses used for that major or minor may not apply to his/her major or minor a departmental course in which a grade of less than C- is earned.
2. Undergraduate students who have been admitted to the university provisionally because of non-satisfaction of the high school mathematics requirements may not enroll in any mathematics credit course before this requirement has been met.
3. Students may not pursue two programs (major or minor) within Mathematics.

Mathematics Major—Plan A

Required:

Mathematics: completion of 80:062, 80:076.

Electives: 20 hours from at least three of the following eight areas with two of these including two-semester sequences:

Mathematics:

- Algebra: 80:160; 80:161; 80:162; 80:193.
 - Analysis: 80:140; 80:141; 80:147; 80:148; 80:156.
 - Computer-Related Mathematics: 80:074; 80:176; 80:177; 80:184; 80:187.
 - Geometry: 80:165; 80:166; 80:189; 80:197.
 - History and Philosophy of Mathematics: 80:180; 80:181; 80:185.
 - Mathematical Logic: 80:163; 80:169; 80:182; 80:183.
 - Probability and Statistics: 80:152; 80:154; 80:174; 80:175.
 - Topology and Differential Geometry: 80:155; 80:167; 80:168.
- Additional electives in mathematics or computer science to make a total of 20 hours.

23-43 hours

The total hours will depend on a student's background and will vary from 23-43 hours. This major provides considerable flexibility in course selection and is appropriate for persons with a variety of mathematical interest.

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

Mathematics for Modeling Major—Plan B

Required:.....24 hours

Mathematics: 80:060; 80:061; 80:062 or 80:063; 80:074; 80:076; 80:092.

Computer Science: 81:081.

Electives (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:

Mathematics: 80:176; 80:177; 80:184; 80:187.
Computer Science: 81:130; 81:145; 81:150.

Area II:

Mathematics: 80:152; 80:154; 80:174; 80:175.

Area III:

Mathematics: 80:147; 80:148; 80:149; 80:150; 80:156.

39 hours

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:

Mathematics: completion of 80:062, 80:076; 80:140; 80:141; 80:160; 80:161; 80:167.

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

Mathematics:

- Algebra: 80:162; 80:193.
- Analysis: 80:147; 80:148; 80:149; 80:150; 80:156.
- Geometry: 80:165; 80:166; 80:189; 80:197.
- Mathematical logic: 80:163; 80:169; 80:182; 80:183.
- Probability and statistics: 80:152; 80:154; 80:174; 80:175.
- Topology and differential geometry: 80:155; 80:168.

27-47 hours

The total program will depend on the student's background and will vary from 27-47 hours.

This plan is primarily for the student who wishes to pursue graduate study in mathematics with the possible intent of attaining the doctoral degree.

Mathematics Major—Teaching

Required:

Mathematics: the completion of 80:062, 80:076; 80:160; 80:165; 80:190.

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:

- Algebra: 80:144; 80:161; 80:162; 80:193.
- Analysis: 80:140; 80:141; 80:147; 80:148; 80:149; 80:156.
- Computer-related mathematics: 80:074; 80:176; 80:177; 80:184; 80:187.
- Geometry: 80:166; 80:189; 80:197.
- History and philosophy of mathematics: 80:180; 80:181; 80:185.
- Mathematical logic: 80:163; 80:169; 80:182; 80:183.
- Probability and statistics: 80:152; 80:174; 80:175.
- Topology and differential geometry: 80:155; 80:167; 80:168.

31-51 hours

The total program will depend upon a student's background and will vary from 31 to 51 hours.

*Students with a substantial background in BASIC should take 81:082.

For departmental approval to student teach, a student on the program must satisfy the university requirements to student teach and the following specific departmental requirements:

1. Must successfully complete 80:062; 80:076; 80:160; 80:165; 80:190; 81:070 or 81:082; 81:081.
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.

Mathematics Minor

A minimum of 20 hours is required as follows:

Required:

Mathematics: 80:0604 hours

Electives from:

Mathematics: 80:061; 80:062; 80:063; 80:072; 80:076; 80:080; 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 minor16 hours
20 hours

Mathematics Minor—Teaching

A minimum of 27 hours is required as follows:

Required:

Mathematics: 80:046; 80:060; 80:144; 80:165; 80:19018 hours

Computer Science: 81:070 or 81:081*3 hours

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 minor6 hours
27 hours

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

Mathematics Minor (K-6)—Teaching

Required:

One of the following three General Education courses3 hours
Mathematics: 80:023; 80:072; 80:092.

Each of the following courses20 hours
Mathematics: 80:030; 80:037; 80:111; 80:112; 80:113; 80:114.

One of the following two courses1 hour
Mathematics: 80:137; 80:192.

24 hours

Military Science

T. Rippe, Head. K. Born, D. Nixon, K. Wales.

General—The Department of Military Science administers the Army Reserve Officers' Training Corps (ROTC) program at the University of Northern Iowa. Credits earned in the Department count as general elective credits toward baccalaureate degree requirements or a minor in Military Science. All instructors in the Department are career U.S. Army Officers. The course of instruction is designed to be a four-year program. Students with prior military experience may be allowed to complete the program in two years. Students who desire to receive a commission as an officer in the U.S. Army will be required to contract with the Department of the Army during the final two years of the course. They will receive \$1,000 a year stipend for two years and will incur a service obligation upon graduation.

The Four-Year Program—The ROTC program is divided into two parts: the Basic Course and the Advanced Course each lasting two years. Students may be allowed to waive the Basic Course requirements with Department Head approval.

Required:.....18 hours
 Basic Course: 08:091, 08:092, 08:094, 08:095.
 Advanced Basic: 08:116, 08:117, 08:118, 08:119.

Electives:.....15 hours
 3 hours selected from each of the following fields:
 Written Communication,
 Human Behavior, Military History,
 Computer Literacy, Math Reasoning.

For a student to receive a commission, they must receive credit for the Basic Course and are required to take the Advanced Course. A Military Science Minor is offered and consists of the following requirements.

Military Science Minor

Required:.....18 hours
 Military Science:
 08:091*, 08:092*, 08:094*, 08:095*, 08:116, 08:117, 08:118,
 08:119.

Electives:.....21 hours
 3 hours selected from each of the following fields: Written
 Communication, Human Behavior, Military History,
 Computer Literacy, Math Reasoning, Management,
 Security Studies.

* Requirement may be waived by the Department Head.

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

ROTC SMP cadets are paid at the rate of a Sergeant (E-5) for their one weekend a month training assemblies, plus up to \$1,400 a year in New G.I. Bill educational assistance benefits. Many ROTC SMP cadets also qualify for the Student Loan Repayment Program.

ROTC Scholarships. U.S. Army ROTC two-, three-, and four-year scholarships are available. They cover all tuition and required educational fees at UNI, and provide \$225 a semester for textbooks, supplies and equipment.

Army ROTC scholarships also provide a subsistence allowance of up to \$1,000 for each school year that the scholarship is in effect. Winning and accepting an ROTC scholarship does not preclude accepting other scholarships. See page 19 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 cannot 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 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, or Air Assault Training.

Financial Assistance. As a minimum, all Advanced Course ROTC students receive \$100 per month for each month of school 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, 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 127 of this bulletin, under Military Science. For additional information, write to the University of Northern Iowa, Department of Military Science, Cedar Falls, IA 50614-0142; come in person to the Old Auditorium Building (Room 37), UNI campus; or call the Student Advisor at (319) 273-6337.

Modern Languages (College of Humanities and Fine Arts)

A. Planells, Head. R. Bubser, J. Dubois, A. Franco, D. Hawley, E. Jamosky, F. Konig, J. Koppensteiner, R. Krueger, R. Munoz, M. Oates, F. Vernescu, N. Vernon, A. Walther, S. Yetter, G. Zucker.

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

Three interdepartmental programs are offered cooperatively with the Department of English Language and Literature and are listed on pages 63-65. 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 33 to 46 hours.

Licensure 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, and 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.....25 hours

Humanities: 68:021.

History: 96:054; 96:156; 96:170 (for students in Russian) or 96:172 (for students in German) or 96:174 (for students in French) or 96:186 (Studies in History: 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 advisor (6 hours outside of history).

Foreign Language component*22 hours

22 hours beyond first-year French, German, Portuguese, Russian or Spanish, to include:

French: 72:101; 72:104; 72:124 or 72:125.

or

German: 74:101; 74:104; 74:123 or 74:150.

or

Russian: 77:100; 77:102; 77:141.

or

Spanish: 78:101; 78:104; 78:123.

or

Portuguese: 79:101; 79:104; 79:123. To include 4 hours from 79:091; 79:186; 79:191; 79:198.

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.

47 hours

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

French Major

Required:

French: a minimum of 33 semester hours in French in courses more advanced than 72:002, including 72:101, 72:103*, and 72:104, of which at least 24 hours must be in courses numbered 100 or higher, and including at least one course from each of the following groups:

a. 72:124; 72:125.

b. 72:108; 72:180; 72:185.

c. 72:114; 72:118; 72:128; 72:131; 72:135; 72:144; 72:146.

*The requirement for 72:103 may be fulfilled by participation in either a UNI or an Iowa Regents Program Abroad.

French Major—Teaching

Required: a minimum of 36 semester hours as follows:

Methods: 70:190; 72:191.

French: a minimum of 33 semester hours in French in courses more advanced than 72:002, including 72:101, 72:103*, and 72:104, of which at least 24 hours must be in courses numbered 100 or higher, and including at least one course from each of the following groups:

a. 72:124; 72:125.

b. 72:108; 72:180; 72:185.

c. 72:114; 72:118; 72:128; 72:131; 72:135; 72:144; 72:146.

*The requirement for 72:103 may be fulfilled by participation in either a UNI or an Iowa Regents Program Abroad.

French Minor

Required:

French: 72:101 or 72:1033 hours

18 hours in French in courses more advanced than 72:002 ...18 hours

21 hours

French Minor—Teaching

Required:

Methods: 70:190; 72:1915 hours

French: 72:1013 hours

18 hours in French in courses more advanced than 72:002 ...18 hours

26 hours

German Major

Required:

German: a minimum of 33 semester hours in German in courses more advanced than 74:002, including 74:101 and 74:104, of which at least 24 hours must be in courses numbered 100 or higher, and including at least one course from each of the following groups:

a. 74:123; 74:150.

b. 74:107; 74:160; 74:180; 74:185.

c. 74:105; 74:114; 74:116; 74:127; 74:128; 74:143; 74:147.

German Major—Teaching

Required: a minimum of 36 semester hours as follows:

Methods: 70:190; 74:191.

German: a minimum of 33 semester hours in German in courses more advanced than 74:002, including 74:101 and 74:104, of which at least 24 hours must be in courses numbered 100 or higher, and including at least one course from each of the following groups:

a. 74:123; 74:150.

b. 74:107; 74:160; 74:180; 74:185.

c. 74:105; 74:114; 74:116; 74:127; 74:128; 74:143; 74:147.

German Minor

Required:

German: 74:1013 hours

18 hours in German in courses more advanced than 74:002...18 hours

21 hours

German Minor—Teaching

Required:

Methods: 70:190; 74:1915 hours

German: 74:1013 hours

18 hours in German in courses more advanced than 74:002...18 hours

26 hours

Portuguese Minor

Required:

Portuguese: 79:1013 hours

18 hours in courses more advanced than 79:002, including

79:104, 79:118, and electives from 79:091; 79:118;

79:123; 79:180; 79:186; 79:191; 79:19818 hours

21 hours

Russian Major

Required:

Russian: a minimum of 33 semester hours in Russian courses more advanced than 77:002, including 77:100 and 77:102, of which at least 23 hours must be in courses numbered 100 or higher, and including at least one course from each of the following groups:

a. 77:141.

b. 77:103; 77:105.

c. 77:131; 77:132; 77:134.

Russian Minor

Required:

Russian: 21 hours in courses in Russian more advanced

than 77:00221 hours

Russian Minor—Teaching

Required:

Methods: 70:190; 77:1915 hours

Russian: 21 hours in courses in Russian more advanced than

77:00221 hours

26 hours

Modern Languages/ School of Music

Spanish Major

Required:

Spanish: a minimum of 33 semester hours in Spanish in courses more advanced than 78:002, including 78:101, 78:103*, and 78:104, of which at least 24 hours must be in courses numbered 100 or higher, and including at least one course from each of the following groups:

- a. 78:123; 78:140; 78:152.
- b. 78:107; 78:180; 78:185; 78:195.
- c. 78:112; 78:118; 78:130; 78:132; 78:134; 78:139; 78:142; 78:144.

*The requirement for 78:103 may be fulfilled by participation in either a UNI or an Iowa Regents Program Abroad.

Spanish Major—Teaching

Required: a minimum of 36 semester hours as follows:

Methods: 70:190; 78:191.

Spanish: a minimum of 33 semester hours in Spanish in courses more advanced than 78:002, including 78:101, 78:103*, and 78:104, of which at least 24 hours must be in courses numbered 100 or higher, and including at least one course from each of the following groups:

- a. 78:123; 78:140; 78:152.
- b. 78:107; 78:180; 78:185; 78:195.
- c. 78:112; 78:118; 78:130; 78:132; 78:134; 78:139; 78:142; 78:144.

* The requirement for 78:103 may be fulfilled by participation in either a UNI or an Iowa Regents Program Abroad.

Spanish Minor

Required:

Spanish: 78:1013 hours
18 hours in Spanish in courses more advanced than 78:002..18 hours
21 hours

Spanish Minor—Teaching

Required:

Methods: 70:190; 78:1915 hours
Spanish: 78:1013 hours
18 hours in Spanish in courses more advanced than 78:002..18 hours
26 hours

Program Certificates

For information on the following Program Certificates, contact the department office.

- Bilingual Program Certificate in Chinese
- Bilingual Program Certificate in French
- Bilingual Program Certificate in German
- Bilingual Program Certificate in Portuguese
- Bilingual Program Certificate in Russian
- Bilingual Program Certificate in Spanish
- International Commerce Certificate
- Latin American Studies Certificate
- Translation and Interpretation (All Languages) Certificate

School of Music

(College of Humanities and Fine Arts)

M. Kratzenstein, Acting Director. H. Aibel, T. Barry, P. Brannon, D. Buch, R. Burkhardt, B. Chamberlain, J. Chenowith, B. Chidester, F. Clark, W. Ferrara, A. Floyd, J. Funderburk, J. Gault, R. Grabowski, J. Graham, R. Guy, F. Halgedahl, J. Hansen, S. Hansen, R. Hogancamp, A. Holstad, P. Hughes, M. Jernigan, R. Johnson, J. McDonald, L. Morgan, D. Racher, F. Rees, R. Ross, W. Shepherd, D. Smalley, T. Trille, J. Valentine, R. Washul.

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

- Bachelor of Fine Arts — Music Theatre Major
- Bachelor of Music — Music Education Major
- Performance 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 major is a professional degree designed to prepare the student for 1) a career as an artist-performer, 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.

Vocal and Instrumental Competency: Required of all Music Education Majors.

Vocal/choral students (Specialization A) will complete one semester of Instrumental Techniques (57:010); instrumental students (Specialization B) will attend special sections of Instrumental Techniques (57:010) taught by vocal/choral faculty. Keyboard majors enrolling for Specialization A must also satisfy vocal proficiency as determined by the voice faculty.

Foreign Language: Bachelor of Music Performance, voice majors are required to complete one semester (5 credits-UNI) at the College/University level in each of two of the following foreign languages, listed in order of preference: Italian, German, French. Ten (10) semester hours of credit in a foreign language are strongly recommended for students whose applied concentration is voice (Music Education Major) and for all non-voice majors on the Bachelor of Music Performance program.

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 159, 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; 58:025; 58:026; 58:027; 58:028.....	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
	46 hours

Additional requirements: senior recital (may take the form of a performance, composition, or an essay). Students who choose composition as their concentration will elect 58:110; 58:120; and 58:121 and will increase their hours in the major to 48.

Audio Recording Technology Minor

Required:

Music Techniques: 56:015; 56:115; 56:198 (Internship).....	10 hours
Physics: 88:018; 88:052; 88:152.....	11 hours
	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
	21 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; 58:025; 58:026.....	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.

Bachelor of Fine Arts Degree Program

Music Theatre Major (Extended Program)

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:x46).....	2 hours
Applied Voice (54:x49).....	16 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; 58:025; 58:026; 58:027.....	12 hours
Music Literature: 59:005; 59:129.....	5 hours
Electives: choose from the following.....	12 hours
Music: 52:110.	
Music Techniques: 56:015; 56:030; 56:031; 56:135.	
Music Education and Methods: 57:130.	
Music Literature: 59:010; 59:011; 59:050; 59:120; 59:130; 59:150.	

Theatre Core (21 hours):

Physical Education: 42:035; 42:A08; 42:A11; 42:A13.....	5 hours
Communication and Theatre Arts: 50:024; 50:027; 50:050; 50:053; 50:056; 50:060.....	16 hours
	84 hours

Additional Requirements:

1. Keyboard proficiency.
2. Recital/project.

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; 58:025; 58:026; 58:027; 58:028; 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 or B below.....	14 hours
MAJOR TOTAL.....	66 hours

Specializations (choose A or B below)—

Specialization A (Choral/General: K-6, 7-12)

Applied Music: Piano Practicum (54:047, Level IV).....	1 hour
Music Techniques: 56:018; 56:022; 56:030; 56:031.....	7 hours
Music Education and Methods: 57:010 (High Strings or Low Strings recommended); 57:130; 57:165.....	6 hours
	14 hours

Specialization B (Instrumental: K-6, 7-12)

Music Techniques: 56:017; 56:021.....	5 hours
Music Education and Methods: 57:010 (6 hrs., including one course each from brass, percussion, strings, and woodwinds); 57:155.....	9 hours
	14 hours

School of Music/ Philosophy and Religion

Optional Specialization:

Specialization C (Jazz: K-6, 7-12)

Music Techniques: 56:017; 56:021; 56:052/152.....	8 hours
Music Education and Methods: 57:010; 57:155.....	9 hours
Music Theory: 58:127; 58:128.....	4 hours
Music Literature: 59:050.....	3 hours
	24 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: senior recital (half recital).
2. For specialization C (Jazz) only: two (2) semesters of jazz combo.

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 Theory: 58:011; 58:012; 58:013; 58:014; 58:015; 58:016; 58:017; 58:018; 58:025; 58:026; 58:027; 58:028; 58:110; 58:1xx 21 hours	
Music Literature: 59:005; 59:010; 59:011; 59:120; 59:1xx.....	13 hours
Electives: 54:xxx (maximum of 4 hrs.); 56:xxx; 57:xxx; 58:xxx; 59:xxx only.....	11 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; are required to complete one semester (5 credits-UNI) at the College/University level in each of two of the following foreign languages listed in order of preference: Italian, German, French; and are strongly recommended to take Vocal Pedagogy, 57:130, and Performance Literature for Voice II, 59:120.

Note: Performance majors who desire teaching licensure can complete the music methods requirements under the Music Education major (pages 36-37) and the Professional Education Requirements (page 34).

Philosophy and Religion

(College of Humanities and Fine Arts)

S. Thakur, Head. E. Amend, S. Clayton, W. Clohesy, D. Crownfield, F. Hallberg, M. Holland, D. Morgan, M. Reineke, J. Robinson, J. Soneson, T. Thompson.

Philosophy Major

Required:

Philosophy: three of the following—65:100; 65:101; 65:103; 65:104.....	9 hours
65:119; 65:142; 65:145; 65:150.....	12 hours
Electives in philosophy—65:xxx.....	15 hours
	36 hours

Philosophy and Religion Major

Required:

Religion: 64:124.....	3 hours
Philosophy: 65:113; 65:145.....	6 hours
Electives*.....	27 hours
	36 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
Religion: 64:030; 64:124.	
Bible.....	6 hours
Religion: 64:141; 64:142.	
Development of Christianity: two from the following.....	6 hours
Religion: 64:111; 64:112; 64:114; 64:115.	
Great Living Religions: two from the following.....	6 hours
Religion: 64:130; 64:132; 64:134.	
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: 64:126; 64:160.	
Philosophy: 65:153.	
Humanities: 68:194.	
Religion and the Humanities: one from the following.....	3 hours
Religion: 64:123.	
Humanities: 68:165; 68:168.	
Religion and Philosophy: one from the following.....	3 hours
Philosophy: 65:100; 65:101; 65:103; 65:104; 65:113; 65:152.	
Electives in Religion.....	3 hours
	36 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 advisor.

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
Religion: 64:124; 64:141; 64:142.	
Christianity: two from the following.....	6 hours
Religion: 64:111; 64:112; 64:114; 64:115.	
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
Religion: 64:130; 64:132; 64:134.	
Human Selfhood: one from the following.....	3 hours
Religion: 64:126; 64:160.	
Philosophy: 65:152; 65:153.	
	24 hours

Pre-theological students majoring in religion should minor in English, history, psychology, or sociology, or in another field approved by the pre-theological advisor. 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 advisor.

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 College of Business Administration 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)

F. Behroozi, Head. H. Bird, R. Engardt, R. Hanson, P. Hoekje, G. Intemann, M. Jibaly, J. Lin, K. Macomber, D. Olson, R. Unruh, 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; 80:063; 80:076; 80:14918 hours
 Chemistry: 86:044 and 86:048, or 86:0705-8 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; 88:137; 88:138; 88:140;
 88:145; 88:150; 88:152; 88:154; 88:179* (2 hrs.).....34-36 hours
 Electives in physics—100-level (excluding 88:193) 4 hours
 61-66 hours

Note: 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;
 80:076; 80:14918 hours
 Chemistry: 86:044 and 86:048, or 86:0705-8 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; 88:166; 88:167;
 88:172; 88:180 (2 hrs.).....31-33 hours
 Electives in physics—100-level (excluding 88:193) 8 hours
 62-67 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.

Science and Engineering Research Semester

Students wishing to pursue opportunities to study and conduct research at a major national laboratory are advised to consult page 10 of the catalog under the section entitled *Science and Engineering Semester*. Physics majors participating in this program will receive 12 to 15 credits toward their degree. The exact program of study will be determined by the student in consultation with the student's advisor, the department head, and the SERS campus advisor. For further information, contact the department office.

Bachelor of Arts Degree Programs

Physics Major

Required:
 Mathematics: 80:060; 80:0618 hours
 Electives in mathematics beyond 80:0614 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; 88:137; 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, 88:170, 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; 80:0618 hours
 Science and Science Education: 82:190; 82:1963 hours
 Physics: 88:054; 88:056; 88:130; 88:131; 88:137;
 88:138; 88:19323 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
 49 hours

Sufficient work including current curricula should be taken for licensure 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/Political Science

Physics Minor—Teaching

Required:

Science and Science Education: 82:190; 82:196	3 hours
Physics: 88:054; 88:056; 88:193	10 hours
Electives in physics: 100-level courses (including no more than four hours from 88:152 and 88:154)	14 hours
	27 hours

Political Science

(College of Social and Behavioral Sciences)

D. Vajpeyi, Head. P. Agbese, L. Alberts, K. Basom, A. Briery, R. Hays, M. Krogmann, J. Lewis, T. Lindsay, G. Rocha, R. L. Ross, F. Winter, T. Yu.

Political Science Major — Liberal Arts

Required:

Economics: 92:053	3 hours
Political Science: 94:011; 94:014; 94:124; 94:131 or 94:134; 94:160 or 94:161	15 hours
One of the following: 94:135 or 94:149 or 94:162 or 94:163 or 94:164 or 94:165 or 94:168 or 94:169	3 hours
Sociology: 98:058	3 hours
Electives in Political Science	15 hours
	39 hours*

*Not more than nine (9) semester hours of political science taken within the International Affairs Minor may also be counted for credit on this major.

Political Science majors and minors **CANNOT** use either 94:015 or 94:026 to meet either their general education or major or minor requirements.

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 94:162 or 94:163 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) semester 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).

Political Science majors and minors **CANNOT** use either 94:015 or 94:026 to meet either their general education or major or minor requirements.

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 UNI 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 UNI in the Public Administration Major.

Required:

Political Science: 94:014; 94:018; 94:148; 94:153; 94:172; 94:174; 94:176; 94:131 or 94:132; 94:134 or 94:173	27 hours
Internship: 94:180; 94:181 (4-8 hrs.)	6-10 hours
Fifteen (15) semester hours from one of the six areas of concentration	15 hours
	48-52 hours

Area 1 — General Administration — 15 hours
Political Science: 94:131 or 94:132*; 94:149; 94:171; 94:189.
Management: 15:153.
Social Work: 45:144; 45:172; 45:196.
Communication and Theatre Arts: 50:077.
Economics: 92:053; 92:054; 92:117.

Area 2 — State and Community Planning — 15 hours
Design, Family and Consumer Sciences: 31:163.
Social Work: 45:196.
Political Science: 94:131 or 94:132*; 94:171; 94:189.
History: 96:124.
Geography: 97:070; 97:104; 97:168.
Sociology: 98:148.

Area 3 — Public Law — 15 hours
Management: 15:105.
Political Science: 94:136; 94:141; 94:142; 94:146; 94:147;
94:189.
Sociology: 98:162.

Area 4 — Public Personnel — 15 hours
Management: 15:153; 15:165; 15:168; 15:187.
Design, Family and Consumer Sciences: 31:051; 31:055.
Psychology: 40:157; 40:158; 40:160.
Social Work: 45:163 or
Sociology: 98:130.

Economics: 92:116.
Political Science: 94:189 (1-3 hrs.).
Geography: 97:141.
Sociology: 98:114.

Area 5 — Public Service — 15 hours
Design, Family and Consumer Sciences: 31:055; 31:153.
Psychology: 40:160.
Social Work: 45:041; 45:121; 45:144; 45:173; 45:175; 45:196.
Social Work: 45:163 or
Sociology: 98:130.
Political Science: 94:132*; 94:189.
Geography: 97:104; 97:119; 97:168.
Sociology: 98:060.
Anthropology: 99:166.

*Cannot be counted in this concentration if counted in the core.

Area 6 — Public Policy — 15 hours
Design, Family and Consumer Sciences: 31:163.
Social Work: 45:041; 45:121; 45:144; 45:173; 45:175.
Political Science: 94:134 or 94:173*; 94:154;
94:155; 94:189.
Geography: 97:101.
Sociology: 98:125; 98:127; 98:135; 98:148.

*Course selected for core may not be counted in this concentration.

International Affairs Minor — Liberal Arts

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
94:135; 94:162; 94:163; 94:164; 94:165; 94:168; 94:169.	
At least one of the following*	3 hours
Economics: 92:137; 92:138; 92:143. Political Science: 94:189; 94:198. History: 96:138; 96:157; 96:160; 96:168; 96:170; 96:172; 96:174; 96:175; 96:177; 96:178; 96:180; 96:182; 96:187. Geography: 97:114; 97:116; 97:141.	
	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 a 2.00 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 advisor.

Political Science Minor— Liberal Arts

Required:

Political Science: 94:011; 94:014; 94:124; 94:160 or 94:161	12 hours
One of the following: 94:135 or 94:149 or 94:162 or 94:163 or 94:164 or 94:165 or 94:168 or 94:169	3 hours
Electives in Political Science.....	3 hours
	18 hours*

*Not more than nine (9) semester 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).

Political Science majors and minors **CANNOT** use either 94:015 or 94:026 to meet either their general education or major or minor requirements.

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 94:162 or 94:163 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) semester 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).

Political Science majors and minors **CANNOT** use either 94:015 or 94:026 to meet either their general education or major or minor requirements.

Psychology (College of Social and Behavioral Sciences)

A. Gilgen, Head. F. Barrios, J. Bivens, A. Gilpin, L. Hellwig, B. Kopper, A. Osman, J. Somerville, J. Wallace, L. Walsh, D. Whitsett, J. Wong, J. Yates.

Students who want to declare psychology as a major or minor, including the teaching programs, must have completed 9 hours of psychology (courses numbered 40:___) with a minimum GPA of 2.50. Students not meeting this requirement may discuss their special situation with the department head who may waive the requirement in extraordinary circumstances. All transfer students must have permission of the department head in order to declare a major or minor.

Only courses with an earned grade of at least a C- will count toward the majors and minors.

It is possible for psychology majors to graduate with departmental honors provided they have an overall GPA of at least 3.50 and complete a research project deemed worthy of honors by the department. Generally such a project is done in the context of 3 hours of 40:193, Research Experience in Psychology.

Introduction to Psychology (40:008) is a prerequisite for all other psychology courses, and therefore must be taken by all majors and minors. It also counts as a general education requirement.

Psychology Major

Required:

Psychology: 40:008; 40:045; 40:049; 40:118	14 hours
Electives I - 6 hours from the following: 40:104; 40:110; 40:120; 40:123; 40:160; 40:161; 40:175 6 hours	
Electives II - 6 hours from the following: 40:106; 40:127; 40:130; 40:145; 40:149; 40:150; 40:152; 40:153; 40:155; 40:165; 40:193 (3 hrs. maximum)	6 hours
Electives III - 6 hours from the following: 40:125; 40:142; 40:157; 40:158; 40:162; 40:163; 40:166; 40:170; 40:171; 40:173; 40:189 (3 hrs. maximum) 40:190; 40:192 (3 hrs. maximum); 40:198 (3 hrs. maximum)	6 hours
Electives (free-choice) - 6 hours from any elective category listed above	6 hours
	38 hours

Psychology Major—Teaching (Extended Program)

Required:

Psychology: 40:008; 40:045; 40:049; 40:118	14 hours
Electives I - 6 hours from the following: 40:104; 40:110; 40:120; 40:123; 40:160; 40:161; 40:175 6 hours	
Electives II - 6 hours from the following: 40:106; 40:127; 40:130; 40:145; 40:149; 40:150; 40:152; 40:153; 40:155; 40:165; 40:193 (3 hrs. maximum) .	6 hours
Electives III - 6 hours from the following: 40:125; 40:142; 40:157; 40:158; 40:162; 40:163; 40:166; 40:170; 40:171; 40:173; 40:189 (3 hrs. maximum); 40:190; 40:192 (3 hrs. maximum); 40:198 (3 hrs. maximum)	6 hours
Electives (free-choice) - 6 hours from any elective category listed above	6 hours
Social Science: 90:190	3 hours
	41 hours

Students electing the teaching major must minor in one of the academic areas usually taught in secondary schools in order to assure student teaching placement and increase the chances of employment. Particularly recommended for a minor are History, English, Mathematics, some Modern Languages, and the Natural Sciences.

Psychology Minor

Required:

Psychology: 40:008; 40:045; 40:118	10 hours
Electives in psychology	15 hours
	25 hours

Psychology Minor—Teaching

Required:

Psychology: 40:008; 40:045; 40:049; 40:118; 40:192 (1 hr.)	15 hours
Electives in Psychology - 6 hours from the following: 40:106; 40:127; 40:149; 40:152; 40:153; 40:162; 40:163	6 hours
Additional electives in Psychology (any category; see psychology major)	6 hours
	27 hours

Program Certificate

For information on the following Program Certificate, contact the department 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.
 Physics: 88:054 and 88:056.

Electives in science.....22-25 hours
 38 hours

The equivalent of at least 10 hours in computer science is strongly recommended for this science major.

Environmental Planning Emphasis

The Environmental Planning Emphasis under the Science Major is coordinated by an interdepartmental faculty committee appointed by the Dean of the College of Natural Sciences and is designed for those seeking the scientific principles, integrated theory, and practical experience in the field of environmental planning and land use from an ecological approach. The committee will review progress of students at the end of the sophomore and junior years and will recommend awarding of the emphasis upon its completion. A minimum overall GPA of 2.50 is required for retention in the program.

Required.....45-46 hours
 Biology: 84:051; 84:052; 84:103; 84:168.
 Chemistry: 86:048 or 86:070.
 Earth Science: 87:031; 87:035.
 Physics: 88:052 or 88:056.
 Economics: 92:024 or 92:054.
 Political Science: 94:155.
 Geography: 97:168; 97:101 or 97:104.
 Mathematics: 80:072 or
 Biology: 84:157
 Biology: Internship (84:195).....3-4 hours
 Two of the following electives to make a total of 55 hours
 for the major.....5-7 hours
 Biology: 84:160; 84:166; 84:180.
 Earth Science: 87:129; 87:141.
 Physics: 88:134.
 Biology at Lakeside Laboratory: 89:105.

55 hours

In addition, the following courses are recommended:
 Computer Science: 81:070. Biology: 84:176; 84:182.
 Sociology: 98:148.

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.....2 hours
 Elementary, Early Childhood, and Middle School/Junior High: 21:150 3 hours
 Science and Science Education: 82:190; 82:194; 82:195; 82:196.....6 hours
 Biology: 84:051; 84:052.....8 hours
 Chemistry: 86:044; 86:048.....8 hours
 Earth Science: 87:010*; 87:031; 87:121.....12 hours
 Physics: 88:054; 88:056.....8 hours
 Science Electives: 7 hours from biology, chemistry, physics and earth science which must include 6 hours at the 100 level or above.....7 hours
 54 hours

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.
- *87:010 must be taken for four semester hours of credit.

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.....10 hours
 Biology: 84:051; 84:052; 84:103; 84:168.....14 hours
 Chemistry: 86:044; 86:048.....8 hours
 Earth Science: 87:031; 87:035; 87:121.....12 hours
 Physics: 88:054; 88:056.....8 hours
 Electives in biological and physical science at the 100 level.....3 hours
 55 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 cannot 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*; 87:031; 87:035; 87:121.....16 hours
 Physics: 88:054; 88:056.....8 hours
 Two courses from the following.....4 hours
 Science Education: 82:194.
 Biology: 84:193.
 Chemistry: 86:193.
 Physics: 88:193.
 Electives from:
 Biology (must include botanical and zoological science).....8 hours
 Chemistry.....8 hours
 Physics.....8 hours
 72 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.
- *87:010 must be taken for four semester hours of credit.

Basic Science Minor (K-6)— Teaching

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

Required:

Elementary and Middle School/Junior High: 21:141	3 hours
Science and Science Education: 82:031; 82:032; 82:130; 82:181.14	14 hours
Biology: 84:181	4 hours
Earth Science: 87:181	4 hours
	25 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 licensure 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: 97:026; 97:040; 97:141 or 97:142; 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)

T. Keefe, Head. M. Greene, J. Hanson, J. McCullagh, C. Singleton-Henkin, K. vanWormer, D. Wright.

The Social Work Department at the University of Northern Iowa is accredited by the Council on Social Work Education. The undergraduate social work major prepares students for beginning level professional social work practice.

Social Work Major

Required:

Design, Family and Consumer Sciences: 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
	53 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 UNI 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 45:184 Field Instruction, the following must be present: Senior standing (90 or more credit hours); completion of 45:091 and 45:192 with a minimum grade of C in each course; 45:042; 45:164; and 45:185.

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.

Social Work Certificate

Substance Abuse Counseling Certificate

Sociology and Anthropology

(College of Social and Behavioral Sciences)

V. Noack, Head. P. Baker, C. Bartollas, J. Chadney, B. Crew, N. Durham, C. Farris, M. Grey, E. Henderson, T. Hill, R. Kramer, M. Leiber, J. Louwell, G. Lutz, T. Mauhorr, A. Podolefsky, R. Roberts, M. Shott, J. Stockdale, A. Woodrick, S. Yadava.

Anthropology Major

Required:

Fifteen hours from the following.....	15 hours
98:080; 98:xxx; 99:010; 99:011; 99:179.	
Nine hours from the following.....	9 hours
99:142 or 99:143; 99:153 or 99:154; 99:152 or 99:171 or 99:178.	
Electives in anthropology.....	12 hours
	36 hours

Anthropology Major—Teaching (Extended Program)

Required:

Social Science: 90:190.....	3 hours
Sociology: 98:080.....	3 hours
Anthropology: 99:010; 99:011.....	6 hours
Electives in anthropology.....	24 hours
	36 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, 99:189, and 99:198 may be applied toward this major.

Criminology Major

Required:

Sociology: 98:058; 98:021; 98:022; 98:080; 98:085; 98:123; 98:126; 98:127; 98:175.....	27 hours
Advanced Research Methods Courses: Three hours from the following.....	3 hours
Sociology: 98:120; 98:160; 98:165; 98:174/99:174; 98:178/99:178.	
Electives: 12 hours from the following.....	12 hours
Sociology: 98:116; 98:124; 98:128; 98:129; 98:131; 98:132; 98:162/99:162; 98:169/99:169; 98:180; 98:181; 98:184; 98:198.	
	42 hours

Note: Students majoring in Criminology should take 98:021 and 98:022 before taking any 100-level courses within the major.

Advisor's approval is required for the following courses to count toward the criminology major: 98:180; 98:184; and 98:198.

Sociology Major

Required:

Sociology: 98:058; 98:060; 98:080; 98:085; 98:170; 98:178.....	18 hours
Electives in sociology (98:xxx).....	12-15 hours
Electives in anthropology (99:xxx).....	3-6 hours
	36 hours

At least 15 hours of credit toward the major must be in 100-level courses. Not more than nine (9) semester hours of credit from 98:145, 98:184, 98:189, 98:198, 99:145, 99:184, 99:189, and 99:198 may be applied toward the major.

Not more than 18 semester hours of credit taken within the Criminology Major may also be counted for credit on this major.

Not more than nine (9) 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
Sociology: 98:058; 98:060; 98:080; 98:085; 98:170.....	15 hours
Anthropology: 99:011.....	3 hours
Anthropology electives—at least 12 hours must be 100-level courses.....	15 hours
	36 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 six (6) semester hours of credit taken within the Criminology Minor may also be counted for credit on this major.

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

Anthropology Minor—Teaching

Required:

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

Criminology Minor

Required:

Sociology: 98:058; 98:021; 98:022; 98:127; 98:175.....	15 hours
Two or more of the following: Sociology: 98:116; 98:123; 98:124; 98:126; 98:128; 98:129; 98:131; 98:162/99:162; 98:180.....	6 hours
	21 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
	21 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
	24 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.

Skills in Social Research Certificate

Special Education (College of Education)

M. Thompson, Head. W. Callahan, L. Courtnage, S. Etscheidt, T. Little, C. Macfarlane, D. Nuttycombe, D. Raschke, S. Stainback, W. Stainback.

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 Requirements, the specified major requirements, plus approved electives to complete a minimum of 130 hours. The specified major requirements are as follows:

Required:

Special Education core: 22:170; 22:174; 22:184; 22:192 (2-3 hrs.)	11-12 hours
Major requirements	23-25 hours
Special Education: 22:140; 22:141; 22:152; 22:153; 22:187; 22:192 (4-6 hrs.).	
Health: 41:011 or equivalent American Red Cross and First Aid Certification.	
Communicative Disorders: 51:141.	
	<u>34-37 hours</u>

Early Childhood Special Education Minor—Teaching

Required:

Special Education core: 22:184	3 hours
Minor requirements	23-25 hours
Communicative Disorders: 51:141.	
Special Education: 22:140; 22:141; 22:152; 22:153; 22:187; 22:192 (4-6 hours).	
Health: 41:011 or equivalent American Red Cross and First Aid Certification.	
	<u>26-28 hours</u>

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:

Special Education core: 22:170; 22:174; 22:184; 22:192 (2-3 hrs.)	11-12 hours
Major requirements	20-22 hours
Special Education: 22:142 or 22:143; 22:153; 22:167; 22:183; 22:187; 22:192 (4-6 hrs.).	
Health: 41:011 or equivalent American Red Cross and First Aid Certification.	
	<u>31-34 hours</u>

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:

Special Education core: 22:170; 22:174; 22:184; 22:192 (2-3 hrs.)	11-12 hours
Minor requirements	11-12 hours
Educational Psychology: 20:173.	
Special Education: 22:142 (Corequisite: 22:192); 22:146.	
	<u>22-24 hours</u>

Behavioral Disorders, 7-12 Emphasis

Required:

Special Education core: 22:170; 22:174; 22:184; 22:192 (2-3 hrs.)	11-12 hours
Minor requirements	14-15 hours
Educational Psychology: 20:173.	
Special Education: 22:143; (Corequisite: 22:192); 22:147; 22:151.	
	<u>25-27 hours</u>

Learning Disabilities, K-6 Emphasis

Required:

Special Education core: 22:170; 22:174; 22:184; 22:192 (2-3 hrs.)	11-12 hours
Minor requirements	11-12 hours
Educational Psychology: 20:170.	
Special Education: 22:146; (Corequisite: 22:192 [2-3 hrs.]).	
Special Education: 22:142 or Reading and Language Arts: 23:147 (Corequisite: 23:192; prerequisites: 23:116 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).	
	<u>22-24 hours</u>

Learning Disabilities, 7-12 Emphasis

Required:

Special Education core: 22:170; 22:174; 22:184; 22:192 (2-3 hrs.)	11-12 hours
Minor requirements	14-15 hours
Educational Psychology: 20:170.	
Special Education: 22:147; (Corequisite: 22:192 [2-3 hrs.]); 22:151.	
Special Education: 22:143 or Reading and Language Arts: 23:147 (Corequisite: 23:192; prerequisites: 23:116 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)	
	<u>25-27 hours</u>

Mental Disabilities Mild/Moderate, K-6 Emphasis

Required:

Special Education core: 22:170; 22:174; 22:184; 22:192 (2-3 hrs.)	11-12 hours
Minor requirements	15-17 hours
Special Education: 22:142; 22:144; 22:167; 22:183; 22:192 (4-6 hrs.)	
	<u>26-29 hours</u>

Special Education/Teaching

Mental Disabilities Mild/Moderate, 7-12 Emphasis

Required:

Special Education core: 22:170; 22:174; 22:184;

22:192 (2-3 hrs.)11-12 hours

Minor requirements18-20 hours

Special Education: 22:143; 22:145; 22:151; 22:167; 22:183;

22:192 (4-6 hrs.).

29-32 hours

Teaching

(College of Education)

R. Kueter, Head.

Malcolm Price Laboratory School

J. Becker, J. Beckman, M. Betterton, C. Bollwinkel, K. Breitbach, C. Bucknam, D. Christensen, D. Cooney, L. Countryman, D. Darrow, N. Davidson, A. DeVries, J. Dues, L. Dykstra, M. Fanelli, A. Federlein, L. Fernandez, R. Findlay, J. Finkelstein, L. Finsand, G. Froyen, L. Gleissner, M. Griffith, C. Grosvenor, J. Hantula, A. Hawley, L. Hoeff, G. Holmes, T. Keller, D. Kettner, R. Lee, D. MacLennan, J. Maltas, D. McCarty, J. McClain, K. Miller, B. Myers, P. Nelson, L. Nielsen, K. Oakland, E. Ockenga, L. Petersen, N. Phipps, D. Pränrose, M. Purcell, V. Robinson, S. Savereide, M. Schneider, J. Stone, E. Strub, C. Struck, A. Swann, J. Sweigert, D. Tallakson, J. Tarr, N. Teig, K. Treiber, J. Uhlenberg, L. Upham, R. Vanderwall, M. Vargas, P. Waack, L. Weber, J. Wolfe, M. Yoder.

Office of Student Field Experiences

D. Briggs, C. Canning, C. Haug, R. Hawkes, J. Kelly, J. Montgomery, B. Riess, R. Stahlhut.

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/K through 12. The pupils primarily are residents of Cedar Falls and Waterloo and provide a rich, multi-cultural, public school setting which enables the Laboratory School to respond fully to its university responsibilities. The school offers a comprehensive program of studies and activities. It is a member of the Area 7 Education Agency, and is accredited by the Iowa Department of 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 clinical and classroom experiences for students from all departments of the university as they prepare to enter the teaching profession. Members of the faculty supervise and direct these experiences and, in addition, teach university courses both on and off campus.

2. As a center for experimentation and research, the school is involved heavily in the writing of classroom instructional materials and the development of instructional methods and school curricula. Faculty members work together in project teams, frequently cooperating with colleagues across the university campus, at other Regents institutions, and with the Department of 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 undergraduates seeking a teaching degree. The student teaching program is administered through the office of the Head of the Department of Teaching 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 134). Student teaching is a twelve-semester-hour offering. An additional three semester hours of credit will be received for the Human Relations course, 28:070, which accompanies the student teaching semester.

Special area majors (i.e., art, 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.

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 mid-point of either the first or second assignment within the twelve-hour experience (if two placements) or before the mid-term of a single full semester assignment will receive a "W" (Withdrawn). A student teacher 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 Council on Teacher Education (CTE) 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 CTE is required for placement.

The scholarship average required before a student is permitted to register for student teaching is specified on page 35. 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 semester for which they were a late applicant.

▼ The Graduate Program

The University of Northern Iowa offers a broad curriculum in advanced programs leading to graduate degrees. The ten 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
- Master of Public Policy
- Specialist
- Specialist in Education
- Doctor of Education
- Doctor of Industrial Technology

The university continues its endeavors to meet the needs of higher education and advanced preparation in diverse career fields with a strong and growing graduate program. Graduate degree programs were initiated at UNI in 1951 when the university was authorized by the Board of Regents to offer a program of graduate work leading to the Master of Arts in Education; the program began with the summer session of 1952. In 1960 the graduate program was extended with the addition of a 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 UNI to offer a complete course of professional preparation for the educational practitioner. Three specializations are available through this degree program: counseling, curriculum and instruction, and educational administration.

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, the Master of Music degree in 1976, and the Master of Public Policy in 1991 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 Public Policy is an inter-disciplinary professional degree preparing students for careers principally in the public sector. The program is structured to accommodate both fulltime students and those already in positions in public organizations.

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, when such is approved for inclusion in the student's degree program. 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.

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 head of the department offering the course

Admission to Graduate Study

work. Approval by the Graduate Dean must also be obtained on the same form if the cumulative GPA is below 3.00. The student presents the Student Request form, with appropriate signature(s), when scheduling for class. 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.

Admission to Graduate Study

(This section applies to all students taking graduate courses at the University of Northern Iowa after receiving the bachelor's degree.)

The admission procedures of the Graduate College are administered separately from those of the university's undergraduate program. Upon receiving an indication of interest in graduate study at UNI by a prospective applicant, the Office of the Registrar will supply appropriate application forms and a description of the scope, policies, and procedures of the university's graduate program.

For purposes of clarity and understanding, the following definitions will apply in the administration of the UNI graduate programs:

Non-Degree Student: A post-baccalaureate student who is (a) pursuing graduate course work for self-enlightenment unrelated to any graduate degree program; or who is (b) taking graduate course work in an effort to become accepted into a degree program. No more than 12 credit hours taken on Non-Degree status are eligible for application toward a degree program.

Non-Degree Status: The status enjoyed by a Non-Degree Student.

Degree Student: A student who has been admitted to a degree program by an academic department.

Degree Status: The status enjoyed by a Degree Student.

Provisional Degree Student: A student who has been admitted, subject to certain reservations, to a graduate degree program by an academic department. The reservations must be overcome before a student may be removed from provisional status, and it is understood that no student may receive a UNI graduate degree while on provisional status.

Provisional Status: The status of a Provisional Degree Student.

Candidate: A student who has been approved for degree candidacy by an academic department and by the Office of the Dean of the Graduate College.

Department: Academic departments of the university offering graduate degree programs and interdisciplinary and interdepartmental bodies offering graduate degree programs.

Application for Admission

A student who expects to earn a graduate degree at this university must file a transcript from the college or university granting the baccalaureate degree if other than the University of Northern Iowa. A student who has earned graduate credit at another college or university must file an official transcript of such credit. A student who does not hold a teaching certificate and expects to be recommended by this university for an original certificate must also file an official transcript. However, students who do not expect to become degree candidates and who do not expect the University of Northern Iowa to

recommend them for certificates do not need to file transcripts. An official statement of the degree and date awarded will be sufficient.

Prospective students may apply for graduate admission under one of two categories: *Non-Degree Status* or *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. A special waiver of the bachelor's degree requirements from the Office of the Dean of the Graduate College.

Responsibility for admission into Non-Degree Status and monitoring of academic performance depends on the student's objectives. Inquiries may be made to the Associate Dean for Student Services, Graduate College.

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.

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 (exceptions are identified in next paragraph) applying for admission to the University of Northern Iowa Graduate College for Degree Status must forward to the Office of the Registrar, with their application, their scores of the Graduate Record Examination (GRE) Verbal, Quantitative, and Analytical Aptitude Tests (along with scores for any Advanced Test if such should be required by the department to which they are applying for degree status). The applicant should check with the department offering the major of their choice, to determine whether/which GRE scores are required prior to admission.

Students applying for admission to a graduate degree program in the College of Business Administration 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 Office of the Registrar along with application. Students from other countries may be required to take TOEFL instead. Foreign students should contact the International Services Office, 120 Gilchrist Hall, University of Northern Iowa, for explanation of requirements.

3. Students will be admitted to Degree Status on one of two bases:
 - a. At the discretion of the academic department concerned, an applicant with undergraduate and prior graduate grade point average of less than 3.00 can be admitted as a *Provisional Degree Student*. A Provisional Degree Student who completes eight (8) or more credit hours of a degree program with a 3.00 grade point average, or better, is eligible for reclassification to Degree Student Status. The responsibility for such reclassification rests with the academic department concerned.
 - b. An undergraduate grade point average of 3.00 or higher, or 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*.

- Other criteria for Degree Status admission may be established by departments. Students should contact the head of the department for this information.

Non-Degree Students may apply for Degree Status on the same basis as students not previously enrolled in the UNI Graduate College. However, a department may, at its discretion, approve a Non-Degree Student's application for Degree Status even if the student's undergraduate grade point average is less than 3.00 provided that the student has completed eight (8) or more hours of graduate courses with a grade point average of 3.00 or more.

Responsibility for determining eligibility for admission to graduate degree programs rests primarily with the academic departments. The department admitting a student to its graduate degree program will draft a letter of acceptance to be sent to the student; this letter will describe the requirements necessary for completion of the degree program in question. Any waivers of degree requirements as established by a department must be furnished to the applicant by the department in the letter of acceptance.

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.

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:

- a second baccalaureate degree, designation as Senior; or
- teacher licensure, designation as Senior; or
- a miscellany of courses for undergraduate credit, designation as Unclassified.

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.

Health

Graduate applicants for admission to UNI are not required to file a report of a physical examination or a medical history. However, the university does require documentation of measles (rubeola) immunization by all students. Instructions for complying with this requirement will be sent to each student upon admission. In the interest of providing optimum health care, University Health Services recommends that incoming students who have physical disabilities or health concerns provide the Health Center with information concerning their situation. (See pages 22-23 for services available through University Health Services.)

Grade Point Average

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.

A student who has completed nine (9) semester hours in a program of study with a cumulative GPA less than 3.0 in that program will be placed on probation. A student who has completed 18 semester hours in a program of study with a cumulative GPA less than 3.0 in that program will be suspended.

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.

Note: Students admitted to graduate study and taking their first courses prior to Fall Semester 1991, should refer to the UNI catalog in use at the time of their admission.

A student reinstated after suspension who fails to attain a cumulative GPA of 3.0 in the program of study for the first enrollment period will be permanently suspended from the graduate program.

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 the student has not yet filed a program of study, all graduate courses 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. When *C* range grades in the program of study exceed the six hour limit, one or more of such courses *must* be repeated. The original grade for any repeated course will be included in computation for the cumulative GPA in the program of study, as well as in the overall GPA. A course taken to satisfy degree requirements in which a student receives a *D* or *F* grade will not be considered satisfactory and *must* be repeated. The original grade for any repeated course will be included in the computation for the cumulative GPA in the program of study, as well as in the overall GPA. Individual departments may identify specific courses within the program of study for which a minimum grade of *B* is required.

The Making Up of Incomplete Work

Work reported as *Incomplete* for graduate students must be completed by the end of the sixth week of the next fall/spring semester. Work reported *Incomplete* in the summer session must be completed by the end of the sixth week of the next fall semester. The exact length of time to remove the incomplete within the above guidelines, is set by agreement between the instructor and the student. If the work reported as incomplete is not made up by the deadline noted above, it is automatically entered as a *Failure* on the student's record. However, if for sufficient cause an *Incomplete* cannot be removed by the agreed upon date a request for an extension of the time may be made to the instructor of the course with the approval of the Graduate Dean also required.

Admission to Graduate Study Graduate Assistantships

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.

Regulations Affecting Registration

Each student admitted to graduate study is assigned an advisor. The advisor 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, except approved non-graded graduate course work.

4. **Credit from other Institutions.** Graduate credit from other accredited institutions may be accepted to a maximum of one-third of the number of hours (exclusive of thesis credit) required by a particular UNI thesis or non-thesis master's degree program. The specialist and doctoral degree programs each have different transfer credit policies. For a particular degree program's requirements, see its regulations given in this catalog. Students in any graduate degree program should discuss their plans to transfer credits with their program advisors 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 GI Bill representative in the Office of the Registrar will assist students eligible under any of these laws and provide the required reports. Subsistence will depend upon the number of course hours for which the student enrolls. University officials are authorized to make certain exceptions in the matter of veterans doing graduate work. Questions should be referred to the G.I. Bill representative in the Office of the Registrar.

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 advisor 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 and half-assistantship stipends 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. However, a student receiving a full assistantship stipend cannot be otherwise employed on campus.

To be eligible, a graduate student must have a minimum 3.0+ GPA. Once the student has begun studies at the University of Northern Iowa, GPA eligibility will be based upon courses within the program of study. In absence of a program of study, all graduate courses will be used as a basis of computation for GPA eligibility. A graduate student receiving an assistantship stipend must be enrolled full time (9+ graduate graded hours to a maximum of 15 hours per semester).

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 assistantship stipends are made by the department head to the dean of the given college who selects those to be recommended to the Graduate College. Graduate Assistantship stipends are awarded through the Graduate College.

Scholarships

Tuition scholarships are awarded through the Graduate College upon recommendation of both the department head and college dean. To be eligible a graduate must have degree status and a minimum 3.0+ GPA. Once the student has begun studies at the University of Northern Iowa, GPA eligibility will be based upon courses within the program of study. In absence of a program of study, all graduate courses will be used as a basis of computation for GPA eligibility. A graduate student receiving a tuition scholarship must be enrolled full time (9+ graduate graded hours to a maximum of 15 hours per semester). 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.

The Graduate College also administers the campus activities involved in several scholarship competitions, such as Fulbright, Rhodes, and Marshall, which support graduate study abroad. Interested students are encouraged to inquire about these programs of support in their junior or senior year of college or as early in their graduate programs as possible.

Some university departments offer scholarships for graduate study. Students should obtain information about these awards from the departments in which they intend to do graduate work.

Loans

Qualified students may secure loans from either 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 UNI Financial Aid Office, 116 Gilchrist Hall, University of Northern Iowa, Cedar Falls, Iowa 50614-0024. See pp. 18-19.

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 (see Non-Degree Status). A student who wishes to earn the master's degree must first be admitted to graduate study and then seek admission to candidacy for the degree.

Admission to candidacy is granted after the conditions explained below have been met. Students must have a cumulative grade point average of at least 3.00 for courses taken as a graduate student to be eligible for candidacy.

Academic departments offering graduate degree programs have established procedures for monitoring and advising students in order to assure that their work meets the standards and complies with the requirements set by the departments. Accordingly, the department conducts a formal interview between the student and a committee or departmental representative assigned by the department to evaluate and guide the progress of the student. No more than twelve (12) semester hours of credit completed before this interview is conducted can be applied toward the degree being sought. Therefore, this interview should be conducted during the first semester in which a student is enrolled in a degree program. At this interview, the student's program of study will be planned and approved by the committee or departmental representative. This program must indicate how all requirements for the master's degree will be met. The program must be approved by the Department Head and Dean of the appropriate College and filed with the graduate College following completion of no more than 12 hours of course work in the program. The form on which the candidacy application is made is known as the GF-1 and is available in departmental offices. Although *Unconditional* admission to graduate study is a prerequisite for the approval of candidacy

for the master's degree, the department may file the GF-1 with the Graduate College if the student has *Provisional* classification. As noted in the section **Requirements for Admission to Degree Status**, if a student had previously been admitted as *Provisional*, the department has responsibility for notifying the Graduate College when the student's classification is changed to *Unconditional*.

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 advisor 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 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. Any admission provisions have been met and *Unconditional (Full) Degree Status* is achieved.
2. There has been successful completion of the candidacy examination, if the department chooses to administer one. The student should consult with the department head or graduate coordinator to determine if a candidacy examination is required.
3. At least nine (9) semester hours of course work from the program of study have been completed with a minimum cumulative GPA of 3.0 in those courses.
4. A final program of study, including the designation of all elective course work, has been approved by the departmental committee or representative.
5. The thesis or non-thesis option has been designated, and the thesis or research paper committee has been approved by the departmental committee.
6. The departmental committee recommends candidacy.
7. The application has been approved by the department head.
8. 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 advisor 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. 95.

Selection of Thesis Topic. The student following the thesis plan of study is urged to make at least a tentative selection of a topic by the end of his or her first semester in residence. The delineation of an exact topic is not necessary before applying for candidacy, but the designation of a probable area must be made.

Graduation Requirements Thesis Plan

1. A minimum of 30 semester hours of graduate credit, of which at least 24 hours must be in course work excluding thesis research credit. At least 20 semester hours must be earned at the University of Northern Iowa.

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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. 96 to 108
 - Master of Business Administration
 - No core required.
 - Master of Music
 - No core required.
 - Master of Philosophy
 - No core required. See program course requirements pp. 114-115.
 - Master of Public Policy
 - Not available on thesis option.

Non-Thesis Plan

1. The minimum number of hours of graduate credit varies with the major. All include at least 30 semester hours. (See pp. 93 to 96). At least 20 semester hours must be earned at the University of Northern Iowa, of which at least six (6) semester hours must be earned in a single semester or summer session.
 2. A minimum of nine (9) semester hours in 200-level credits, other than xx:299 Research, plus three (3) additional semester hours of 200-level credits which may or may not be in xx:299 Research depending upon the policy of the major department and the specific study plan formulated for the individual student.
 3. The course requirements for a specific major and any additional courses designated by the departmental committee.
 4. Core Requirements:
 - Master of Arts in Education
 - 20:214 Foundations of Instructional Psychology — 3 hrs.
 - or
 - 26:234 Philosophy of Education — 3 hrs.
 - 25:205 Educational Research — 3 hrs.
 - Master of Arts
 - Professional Core A or Professional Core B — required only by certain majors.
 - Master of Business Administration
 - No core required.
 - Master of Music
 - No core required.
 - Master of Philosophy
 - Not available on non-thesis option.
 - Master of Public Policy
 - See program requirements on pp. 115.
 - Professional Core A (prerequisite: Teacher Licensure or equivalent)
 - 20:214 Foundations of Instructional Psychology — 3 hrs.
 - or
 - 26:234 Philosophy of Education — 3 hrs.
 - 25:205 Educational Research or a departmental course in Research and Bibliography
- A course in curriculum or methods of instruction in the major field or any additional course numbered 200 from courses in the 20: through 29: series.

Professional Core B (Students completing Professional Core B with an appropriate distribution of courses in one or more subject areas may be recommended for Iowa Community College licensure.)

27:252 Current Issues in Higher Education — 2 hrs. (or 3 hrs.)

27:250 Teaching in College — 3 hrs.

:297 Practicum — 2 hrs.

5. At least one research paper approved by the department and filed in the departmental office. The research paper must be read and approved by a committee of at least two members of the graduate faculty, be presented in a format acceptable for publication, and be permanently filed in the department 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 within the program of study. No more than six (6) semester hours of "C", "C-", "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. **Nongraded Credit.** Up to three credit hours of nongraded course work may be applied within the program of study.
4. **Candidacy.** The requirements for candidacy are described on p. 93.
5. **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 University of Northern Iowa record until the student's major department approves the credit to be included in the student's program of study. The University of Northern Iowa will not accept as graduate transfer credit courses with a grade lower than "B-."
6. **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 100g-level correspondence credit may be applied to a graduate degree program. The request must be made prior to registering for the course.
7. **Workshop Credit.** More than six (6) hours of credit earned in workshop courses ordinarily will not be applied toward a graduate degree.
8. **Radio and Television Class Credit.** Credit earned in radio and television classes usually may not be applied toward the master's degree.
9. **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.
10. **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.
11. **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 at the end of the student's program of study. 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. 92), and (2) the departmental candidacy examination (see p. 93). 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 pp. 114-115.

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.

12. **Research Credit.** Registration for xx:299 Research will not be accepted until the student has submitted a statement or outline of the proposed research project and has secured the approval of the person directing the research project and the head of the appropriate department. A copy of the completed research report, approved by the director of the research project and the department head, will be filed in the departmental office.

Research carries residence credit and may be pursued either on campus or off campus, but not in an extension class. There is no prerequisite, although it is strongly recommended that 25:294 Educational Research or a departmental course in research be completed before registering for Research. It is expected that the work will be completed during the given semester or summer session.

13. **Residence.** At least two-thirds of the minimum hours required for a particular thesis or non-thesis master's degree program must be taken with members of the UNI faculty; this is exclusive of thesis credit. The specialist and doctoral degree programs each have different residence requirements. For a particular degree program's requirements, see its regulations given in this catalog. Students in any degree program should discuss their residence credit plans with their program advisors 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.

14. **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 most current edition of the *"Thesis and Dissertation Manual."*

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 have a formal oral defense of 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.

15. **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 *Thesis and Dissertation 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 present a receipt of payment of the thesis binding cost of \$6 for the library copies. This fee should be paid at the University Controller's 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 — A Bibliographic Retrieval Award of up to \$25 will be made for a single search conducted with the assistance of the reference librarians in the Donald O. Rod Library for students who are planning a thesis or dissertation. The student's advisor must certify in writing that the planned search is being conducted for thesis or dissertation study. To apply, consult with the appropriate reference librarian to structure the search. The librarian will provide a Bibliographic Retrieval Billing Form. Fill out that portion of the form appropriate for personal payment of the search fees. The student sends or takes the form to the Graduate College Office along with a written statement from the research advisor certifying that this search is part of thesis or dissertation research. If the award is granted, the Graduate College Office will make the appropriate entries on the Bibliographic Retrieval Billing Form certifying that its budget is responsible for the first \$25 of the resulting charges and will mail the form to the student in care of the academic department. The search may then be scheduled and completed with the assistance of the reference librarian. All charges in excess of \$25 will be placed on the student's University bill.

16. **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

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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.

17. **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.
18. **Attendance at Commencement.** The candidate for the master's degree is expected to secure the appropriate academic costume and to appear at commencement for the awarding of the degree.

Summary of Hour Requirements

A summary of the hour requirements for both the thesis and the non-thesis plans is listed below. These are the *minimum* number of hours and should not be interpreted as a maximum number. Additional hours may be required by departments for individuals on specific programs or special objectives.

	Thesis	Non- Thesis
Minimum graduate hours required	30*	30-37**
Minimum hours of credit at UNI	20	20-25^
Maximum usable hours combined in transfer and correspondence credit	10^^	10-12^^
Maximum usable hours of correspondence credit (requires special permission to use)	3	3
Minimum hours required in courses numbered 200 and above	9#	12##

*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.

^^Up to one-third of the hours on the graduate study plan.

#In addition to the six (6) hours research credit for thesis.

##In some departments they may include three (3) hours of xx:299 Research.

Licensure and Endorsements

Licensure. For approval in some graduate programs, a student must have earned or be eligible for a teacher licensure or its equivalent endorsed in an area appropriate to the graduate major. For information on licensure, consult the Registrar.

Teaching Licensure and Endorsements. Students interested in securing licenses to teach in another state should secure information directly from the State Department of Education in that state.

Addresses of different state departments may be obtained from the Office of Career Planning and Placement or the Office of the Registrar.

Second Master's Degree

A student may pursue a second master's degree at the University of Northern Iowa upon completion of the first degree or may pursue two separate master's degrees concurrently by meeting all 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, separate master's project/thesis and comprehensives, and all other specific requirements shall be met for the second degree in addition to the first degree.

Interdisciplinary Master's Degree

A student may pursue a master's degree with two majors, meeting all the requirements for the second major, eight (8) hours of work from the first major may be used for the second. The requirements for work at the University of Northern Iowa, "200" work, and all other specific requirements shall be met for the second major, in addition to work completed for the first major. Common research project/thesis and comprehensives are permissible.

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 licensure, and for graduate study without reference to teaching. The following majors are offered.

Art	Mathematics for Elementary and Middle Schools (K-9)
Audiology	Music
Biology	Physical Education
Chemistry	Physics Education
Communication and Theatre Arts	Political Science
Communications and Training Technology	Science
Computer Science Education	Science Education
Counseling	Science Education for Elementary Schools (K-6)
Earth Science	Social Science
English	Sociology
French	Spanish
General Psychology	Speech-Language Pathology
Geography	Teaching English to Speakers of Other Languages (TESOL)
German	Technology
Health Education	TESOL/Modern Languages
History	Two Languages: French/German, Spanish/French, German/Spanish
Leisure Services—Youth/Human Service Agency Administration	
Library Science	
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 advisor 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. 93-96.

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. A review of the applicant's undergraduate course work and portfolio is the basis for admission to the graduate program. The Chair of Graduate Studies in the Department of Art

should be contacted for specific information regarding the preparation of the applicant's portfolio.

As a general rule, students who have received an undergraduate degree in art will be admitted to the program without additional course requirements. Additional course work may be required of those applicants who meet all other admission criteria but did not complete an undergraduate degree in art. Credit for additional work may not apply toward the degree program.

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 advisor.

Art Education Emphasis:

In addition to the common core, students may elect one of four possible directions: improvement as a teacher, research in art education, submission of an original program proposal, and teaching licensure 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 an announcement, 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.

Audiology majors will be allowed to enter the program in the fall only.

Required core:

- Communicative Disorders: 51:258; 51:265; 51:270; 51:271; 51:272; 51:273; 51:274; 51:277; 51:278; 51:279; 51:28126 hours

Required:

- Communicative Disorders: 51:255 (waived if the student has had 51:155, undergraduate Clinical Practice, or the equivalent); 51:293; 51:299; 6 semester hours in a related or tool area12-16 hours

Electives:2-6 hours
44 hours

44 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 pathology, the specific courses to be chosen in consultation with the student's advisor. 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 375 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 (28:170g). 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.

All students must abide by the policies and procedures found in the major manual which is published by the department and available for purchase from the department secretary.

Major In Biology

This major is available on both thesis and non-thesis options. Students interested in enrolling in the program must complete an application and be admitted to the program. Applications should include three recommendations, and transcripts of undergraduate and graduate credits. Results of the GRE are required of students whose undergraduate major is not in the biological sciences, and those whose major is biology but overall GPA is less than 3.0 (4.0).

Required courses:

- Biology: 82:200 (2 hrs.); 84:202 (2 hrs.); 84:257 (2 hrs.); and 84:292 (2 hrs.).

Minimum number of hours for the non-thesis option is 34 semester hours, including a 3-credit-hour research paper. At least 24 hours must be in the field of biology.

Minimum number of hours for the thesis option is 30 hours, including 6 hours credit of thesis research. At least 16 hours of credit, exclusive of thesis research, must be in biology.

The masters program in biology is flexible and designed to allow students, working with their advisors, to develop programs tailored to their interests and aspirations in biology.

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.

Master of Arts Degree

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 advisor.

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.

Combined B.A./M.A. Program

The BA/MA degree program is a five year program, offered on the thesis plan only, leading to both a Bachelor of Arts and a Master of Arts degree in chemistry. This program prepares students for further graduate study in chemistry and related areas, and it also provides training for industrial laboratory positions. Students interested in the BA/MA program should declare their intent to enter the program at the end of their sophomore year. A student may enter the program at the end of the junior year, provided he/she has completed Physical Chemistry II and has an overall GPA of 3.00 or above. Students must meet the admission requirements of the Graduate College upon transition from undergraduate to graduate status at the end of the senior year. Program requirements are essentially the same as those of the M.A. program quoted above. Additional details may be obtained from the Chemistry Office.

Major in Communication and Theatre Arts

A student may seek a general program or specialize in Communication, Performance Studies, Theatre, Public Relations, Communication Education or Theatre Education. The major is available on the thesis and non-thesis options.

Detailed information on the major, including directions for procedures to follow in planning a program and requesting assignment of an advisor, 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:

3 hours in bibliography/methods (50:225)

3 hours in departmental seminar (50:289)

9 hours of 200 level courses

6 hours in research/thesis (50:299)

20 hours in CTA course work (no more than 10 hours outside the department and/or by transfer)

Successful completion of comprehensive exams (after at least 22 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.

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 10 hours outside the department or transfer).

3 hours in bibliography/methods (50:225)

3 hours of departmental seminar (50:289)

3 hours research methodology.

Successful completion of comprehensive examinations after completion of 22 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 *UNI 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 licensure is not required. The student's baccalaureate degree may be in any field.

Required:

Educational Media: 24:101; 24:131; 24:230; 24:235; 24:240; 24:289; 24:297; 24:299.

Electives — 15 credit hours of electives are required from the following courses: 24:130; 24:138; 24:139; 24:145; 24:147; 24:148; 24:150; 24:151; 24:153; 24:155; 24:156; 24:157; 24:170; 24:205; 24:253; 24:260; 24:285; 24:286.

Major in Computer Science Education

This program is designed for a person who is already licensed to teach in secondary schools. Its principal purpose is to prepare that person to teach computer science in secondary schools. In addition to licensure, before starting the program a person must demonstrate a working knowledge in two programming languages, one of them being Pascal, and must have completed a course in data structures.

This major is offered on both the thesis and non-thesis options. A minimum of 32 hours is required.

Required:

Educational Psychology: 20:214.

Educational Media: 24:205.

Measurement and Research: 25:205.

Computer Science: 81:135; 81:140; 81:145; 81:251; 81:252; 81:253.

Electives — a minimum of 7 hours from the following:

Educational Media: 24:240; 24:260.

Computer Science: 81:111; 81:132; 81:150; 81:155;

81:160; 81:178; 81:233; 81:285; 81:286; 81:299;

or another course in an area of computer application outside computer science for 1-3 hours.

Major in Counseling

The program is designed for persons who plan to counsel in non-school settings such as churches, industry, mental health agencies and employment services. Specific areas of interest and the professional field in which the person plans to work will determine the sup-

porting course work and the appropriate electives. A teaching license is not necessary for students pursuing this degree.

- Required courses.....42 hours
 Educational Psychology: 20:142 or
 Psychology: 40:142.
 Educational Psychology: 20:235.
 Measurement and Research: 25:205.
 Counseling: 29:103; 29:105; 29:124; 29:125; 29:205;
 29:220; 29:226; 29:227; 29:228; 29:250; 29:289;
 (two required).
 Required Practicum and Internship.....9 hours
 Counseling:
 29:290 Practicum (3 hrs.)
 29:291 Internship (6 hrs.)
 Electives: a minimum of 9 hours, selected in consultation with
 advisor9 hours
 60 hours

(For students desiring future certification in mental health counseling, 45:121 must be taken as part of the elective hour course work.)

Major In Earth Science

Each student who majors in Earth Science will complete Professional Core A or Professional Core B or a special core arranged by the student and her/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 Community Colleges Emphasis — Professional Core B.

Before being admitted to degree candidacy, graduate students are required to meet with a department committee for a Candidacy Interview. Students should arrange with the Coordinator of English Graduate Studies to complete this interview during the first semester of their course work. The departmental Candidacy Interview Committee may require a candidate to complete additional course work above the minimum hours specified for the selected option or emphasis. In such cases, these hours will be specified at the time of the interview.

Candidates for this major must achieve a cumulative grade point average of at least 3.00 for all course hours taken in the Department of English Language and Literature.

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 including 9 semester hours of 200-level courses and 6 hours of 62:299 (Research) for the thesis. 62:201.
 Electives: planned with advisor and subject to approval of Candidacy Committee — 21 semester hours.

Students selecting the thesis option are required to take the final Comprehensive Examination, Part One (Core Reading List).

II. Non-Thesis Option

A. 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 foreign language requirement does not count toward the number of hours required for completion of the degree major.

- Required:
 English Language and Literature: minimum of 30 semester hours including 15 hours of 200-level courses. 62:201.
 Electives: planned with advisor and subject to approval of Candidacy Committee — 27 semester hours.

Students selecting this emphasis are required to take the Final Comprehensive Examination, Part One (Core Reading List) and Part Two (selected specialty).

B. Emphasis: Teaching English in the Secondary Schools (Middle/Junior and Senior High) (Professional Core A)

Students selecting this emphasis are required to take either the "Literature in English" or the "Education" Advanced Test in addition to the Aptitude Tests of the Graduate Record Examinations.

A prerequisite for admission to candidacy on this emphasis is a Teacher Licensure or its equivalent. Students admitted to candidacy are expected to have completed the following course work as undergraduates: one course in linguistics; one course in advanced writing; two courses in British literature; one course in American literature; one course in modern or ethnic literature; and 62:190 (Teaching of English). Three semester hours of electives on this master's program may be used to fulfill one of these prerequisites; however, any further deficiencies must be taken in addition to the major's requirements. Students who have not taken all the required prerequisite work should consult at once with the English Department's Coordinator of Graduate Studies in order to plan appropriate course work.

A minimum of 32 semester hours, including at least 15 hours of 200-level courses, is required for the Major in English, with the emphasis, as follows:

- Required:
 Educational Psychology: 20:214 or
 Social Foundations: 26:234.
 Reading and Language Arts: 23:130.
 English Language and Literature: 62:165; 62:193; 62:201;
 62:207 or 62:291.
 6 hours in 200-level literature courses.
 Electives: 6 hours*
 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.

Master of Arts Degree

Recommended electives: a course in journalism, film, speech, or drama; a course in reading or English education; at least one course in literature.

A student who has completed any of the required courses at the undergraduate level may elect other departmental courses to complete the required minimum total of 32 hours.

Students selecting this emphasis are required to take the Final Comprehensive Examination, Part One (Core Reading List) and Part Two (specialty in teaching English in middle, junior high, and secondary schools).

C. Emphasis: Teaching English in Community College (Professional Core B)

Students selecting this emphasis option are required to take either the "Literature in English" or the "Education" Advanced Test in addition to the Aptitude Test of the Graduate Record Examinations.

Students admitted to candidacy on this emphasis are expected to have completed the following course work as undergraduates: one course in linguistics; one course in advanced writing; two courses in British literature; one course in American literature; and one course in modern or ethnic literature. Any deficiencies must be taken in addition to the major's requirements. Students who have not taken all the required prerequisite work should consult at once with the English Department's Coordinator of Graduate Studies in order to plan appropriate course work.

Students completing this program may be recommended for endorsement to teach at the community college or junior college level. Licensure 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.

Educational Administration: 27:252.

English Language and Literature: 62:193; 62:201; 62:292; 62:297.

Linguistics: 63:190 or 63:194; 63:192.

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 advisor. 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.

Teaching Emphasis

This program is offered only on the non-thesis option.

Total required hours: minimum of 34 semester hours of credit, of which at least 16 must be at the 200 level; at least 20 of those credits must represent courses taught in the target language.

Prerequisites: Candidate must hold a valid teaching license. The student who has not completed 70:190, 72:101 and 72:103, or equivalents, before entering the program must add these courses to the requirements stated below.

Required:

Educational Psychology: 20:2143 hours

Measurement and Research: 25:205 or equivalent3 hours

French:

Courses in methods, one of which must be a methodological topic in 72:226, 72:286 or 72:2896 hours

Courses in linguistics, one of which must be at the 200 level, and one language-specific6 hours

Courses in culture and civilization*6 hours

Courses in literature*6 hours

Electives in target language4 hours

*One of these courses must be at the 200 level. Courses must be taught in the target language.

Candidacy — The Candidate:

a) must have completed a minimum of 6 graduate credit hours in the Department of Modern Languages with a GPA of at least 3.00;

b) will be required to demonstrate proficiency in French; and

c) must have documentation of successful teaching experience.

Candidates must pass a final comprehensive examination, both written and oral. A research paper, written on an aspect of methodology, must be approved by the student's M.A. committee and filed with the Department of Modern Languages before comprehensive exams may be taken.

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 required.

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 advisor. 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.

Teaching Emphasis

This program is offered only on the non-thesis option.

Total required hours: minimum of 34 semester hours of credit, of which at least 16 must be at the 200 level; at least 20 of those credits must represent courses taught in the target language.

Prerequisites: Candidate must hold a valid teaching license. The student who has not completed 70:190, 74:101 and 74:103, or equivalents, before entering the program must add these courses to the requirements stated below.

Required:

- Educational Psychology: 20:2143 hours
- Measurement and Research: 25:205 or equivalent3 hours

German:

- Courses in methods, one of which must be a methodological topic in 74:226, 74:286 or 74:2896 hours
- Courses in linguistics, one of which must be at the 200 level, and one language-specific6 hours
- Courses in culture and civilization*6 hours
- Courses in literature*6 hours
- Electives in target language4 hours

*One of these courses must be at the 200 level. Courses must be taught in the target language.

Candidacy — The Candidate:

- a) must have completed a minimum of 6 graduate credit hours in the Department of Modern Languages with a GPA of at least 3.00;
- b) will be required to demonstrate proficiency in German; and
- c) must have documentation of successful teaching experience.

Candidates must pass a final comprehensive examination, both written and oral. A research paper, written on an aspect of methodology, must be approved by the student's M.A. committee and filed with the Department of Modern Languages before comprehensive exams may be taken.

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.

A final comprehensive examination will be required of all students.

Four emphases are offered on this major:

I. Health Promotion/Fitness Management Emphasis

Required:

- Management: 15:119; 15:130.
- Measurement and Research: 25:180 or equivalent.
- Health: 41:255; 41:272; 41:275; 41:290; 41:293.
- Physical Education: 42:253; 42:290.
- Measurement and Research: 25:205 or
- Physical Education: 42:290.
- Electives as approved by the Graduate Committee.

II. Community Health Education Emphasis

Required:

- Health: 41:255; 41:290; 41:293.
- Measurement and Research: 25:205 or
- Physical Education: 42:290.
- 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.
- Physical Education: 42:253; 42:290.
- Electives as approved by the Graduate Committee.

IV. School Health Education Emphasis

Required:

- Health: 41:148; 41:255.
- Measurement and Research: 25:205 or
- Physical Education: 42:290.

The additional course requirements for this emphasis will be governed largely by Teacher Licensure requirements.

Major in History

This major is available on either the thesis or non-thesis option with a minimum of 30 semester hours required for each (thesis, 24 hours plus 6 hours credit for the thesis). A research paper is required on the non-thesis option. Prospective majors must consult with the department head about further requirements prior to beginning their programs.

Required:

- History: 96:193; 96:280; 96:289 United States Historiography or 96:289 European Historiography or another approved historiography course; 96:290.

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 Leisure Services—
Youth/Human Service Agency
Administration**

This major is designed to enhance the professional preparation of practitioners employed in administrative and supervisory positions involving the delivery of services in youth/human service organizations and agencies. The learner will take an active role in determining educational objectives and an individualized learning plan.

The major is available on both the non-thesis and thesis options. A minimum of 32 semester hours is required. The total number of hours will depend upon the student's undergraduate preparation and professional objectives. The non-thesis plan requires a minimum of 12 hours at the 200 level which may or may not include 43:299 Research (2 hours). The thesis plan requires a minimum of 15 hours at the 200 level which includes 43:299 Research (6 hours). Successful completion of a final comprehensive examination will be required of all students.

Master of Arts Degree

Required:

Leisure Services:

- 43:201 Trends and Issues in Youth/Human Service Agencies — 3 hrs.
- 43:299 Research — 2 or 6 hrs.

Physical Education:

- 42:274 Measurement and Evaluation in Physical Education — 3 hrs. (or equivalent) and
- 42:290 Research Methods in Physical Education — 3 hrs. or

Sociology:

- 98:160 Social Data Analysis — 3 hrs. (or equivalent) and
- 98:165 Survey Research Methods — 3 hrs.

Electives as approved by the Graduate Committee.

Major in Library Science

- Library Science: 35:113; 35:115; 35:121; 35:225; 35:250; 35:290 (2 hrs.); 35:29520 hours
 - Two courses from the following: 35:132; 35:134; or 35:2416 hours
 - Educational Media: 24:139; 24:260 (2 hrs.)5 hours
 - One of the following: 24:240 or 35:2233 hours
- 34 hours**

For endorsement as school media specialist K-12, students must hold or be eligible to hold an Iowa Teaching license.

Major in Mathematics

This major requires as a prerequisite a bachelor's degree with a major in mathematics or the equivalent. It prescribes no specific graduate courses; upon successful completion of the Candidacy Examination, the individual student programs are chosen with the help of the student's advisor.

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 licensure or to provide for it in the program.

A minimum of 32 semester hours is required for this major.

Required advanced education courses: at least 8 hours selected from the following:

- Educational Psychology: 20:109; 20:116; 20:130; 20:214; 20:241.
- Elementary, Early Childhood, and Middle School/Junior High: 21:141; 21:201; 21:255; 21:270.
- Educational Media: 24:205; 24:240.
- Measurement and Research: 25:180; 25:205.
- Teaching: 28:250.

Required mathematics education courses:

- Mathematics: 80:191; 80:235; 80:280; 80:281; 80:290; 80:292 or 80:295.

Required mathematics content courses: at least 10 hours selected from:

- Mathematics: 80:111; 80:112; 80:113; 80:144; 80:160; 80:165; 80:172; 80:174; 80:180; 80:189; 80:210; 80:236.

Notes:

1. The department may substitute as many as 2 credit hours from 80:133, 80:233, 80:285, 80:286, and 80:297 for courses in the categories of "Mathematics Education" and "Mathematics Content."
2. The department may substitute 6 credit hours from 80:299 for courses listed in the three categories for students on the thesis option. This will normally be accomplished by reducing the

required credit hours in each of the above categories by 2 credit hours.

3. A student on this major must have completed 80:134 (or the equivalent) as an undergraduate or else complete this course as a graduate student in addition to the preceding requirements.
4. The specific courses on a student's program will be selected by the student and her/his advisor.

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 a 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 112-113.)

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 pages 159-160.

The Program

This major is offered on both the thesis and non-thesis options for a minimum of 30 hours. Students selecting the non-thesis option will write a research paper.

Required:

- Graduate Music Core.....11 hours
 - Music Literature: 59:221.
 - Music Theory: 58:210; 58:211; 58:212.
 - One course from the following — Music Literature: 59:110; 59:111; 59:112; 59:114; 59:115.
 - Specialization: Applied Music (54:1xxg).....4 hours
 - Electives: Music (all areas except applied music).....9 hours
 - Other electives as approved by the department6 hours (or 59:299 if thesis option)
- 30 hours**

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

Educational Administration: 27:250.

Measurement and Research: 25:205 or

Physical Education: 42:290.

Physical Education: 42:230; 42:273; 42:295 or 42:297;

at least 8 hours from among 42:200; 42:222; 42:

251; 42:253; 42:255; 42:274.

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 sub-disciplines of physical education. It is available only on the thesis option.

Required:

Measurement and Research: 25:180 or equivalent.

Physical Education: 42:290; at least 6 hours from among

Physical Education: 42:222; 42:251; 42:253;

42:255; 42:271; 42:272; 42:274; 42:275.

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 and American Association of Cardiovascular and Pulmonary Rehabilitation standards and guidelines.

Required:

Measurement and Research: 25:180 or equivalent.

Physical Education: 42:253; 42:271; 42:272; 42:275;

42:277; 42:289 (related seminar); 42:290; 42:295.

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) a Teacher Licensure 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 and non-thesis options. For the thesis plan, a minimum of 24 semester hours plus 6 hours for the thesis is required. A student on the non-thesis plan must complete a minimum of 33 graduate hours.

Required:

Political Science: 94:292 and 94:275.

A student may, with departmental approval, take as much as 12 hours in other disciplines. Each student's program will be determined by individual needs and in consultation with the student's advisor 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 advisors, 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 advisor, may be obtained from the Dean of the College of Natural Sciences, UNI, or the Dean of the Graduate College.

A chemistry-physics teaching program is available with this major. Detailed information may be secured in the Chemistry Department office or the Physics Department office.

Major in Science Education

This major requires as a prerequisite a bachelor's degree (teaching preferred) with a major in science or in a specific science discipline. The requirements for teaching licensure must be fulfilled by the completion of the program.

Master of Arts Degree

This major is available on both the thesis and non-thesis options.

Required:

Measurement and Research: 25:205.

Science and Science Education: 82:200; 82:213; 82:290; 82:294.

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 advisor and advisory committee, should be made to the chair of the Science Education Faculty or the Dean of the College of Natural Sciences.

Earth Science Education Emphasis

This emphasis requires as a prerequisite a bachelor's degree (teaching preferred) with a major in Science or in a specific discipline. The requirements for teaching licensure must be fulfilled by the completion of the program.

This emphasis is available on both the thesis and non-thesis options.

Required:

Measurement and Research: 25:205 or

Research Methods in Earth Science: 87:292.

Science and Science Education: 82:200; 82:213; 82:290; 82:294.

Thesis Option (33 hours required):

Earth Science: 6 hours from 82:299 or 87:299.

10 hours from the disciplines of biology, chemistry, earth science, and physics with at least 8 hours of earth science. The combined total of the undergraduate and graduate hours in earth science shall total 40 semester hours.

6 hours of electives from education and science (these could be earth science credits).

Non-Thesis Option (35 hours required):

Earth Science: 3 hours from 82:299 or 87:299.

13 hours from the disciplines of biology, chemistry, earth science, and physics with at least 8 hours of earth science. The combined total of the undergraduate and graduate hours in earth science shall total 40 semester hours.

8 hours of electives from education or science (these could be earth science credits).

Note: The earth science emphasis differs from the Science Education major in that it provides the options of taking either 25:205 or 87:292 and either 82:299 or 87:299. The earth science education emphasis also requires 8 hours of graduate credit in earth science and a total of 40 hours in earth science in combined undergraduate and graduate program.

Environmental Education Emphasis

This emphasis is available for elementary and secondary educators on both the thesis and non-thesis options.

Required: The required courses on this emphasis are the same as those for the major. 82:230 may be substituted for 82:294 or used as an elective as determined by student's graduate advisory committee.

Electives in environmental studies (16-21 hours)*

Category A Basic Sciences

(suggested courses from which to select)

Biology: 84:176; 84:177; 84:189; 84:225; 84:230; 84:255; 84:285.

Chemistry: 86:240; 86:285.

Earth Science: 87:113; 87:141; 87:160; 87:165; 87:171; 87:280; 87:285.

Physics: 88:134; 88:250; 88:285.

Biology at Lakeside Laboratory: any 200-level course.

Category B Resource Management and Education

(suggested courses from which to select)

Science and Science Education: 82:186 or 82:286; 82:230; 82:270; 82:285.

Biology: 84:103; 84:104; 84:180.

Political Science: 94:155.

Sociology: 98:148.

*Normally these hours will be divided equally between Basic Sciences (Category A) and Resource Management and Education (Category B). When formulating the course of study to complete the major, the student and the advisory committee will take into consideration the student's previous academic work. In no case will the course work in either category be less than one-third of the required elective credit.

Physics Education Emphasis

This emphasis requires as a prerequisite a bachelor's degree (teaching preferred) with a major in Science or in a specific discipline. The requirements for teaching licensure must be fulfilled by the completion of the program.

This emphasis is available on both the thesis and non-thesis options.

Required:

Measurement and Research: 25:205.

Science and Science Education: 82:200; 82:213; 82:290; 82:294.

Thesis Option (33 hours required):

Research: 6 hours of 82:299 or 88:299.

10 hours from the disciplines of biology, chemistry, earth science, and physics with at least 8 hours of physics. The combined undergraduate and graduate hours in physics shall total 40 semester hours.

6 hours electives from education and science (these could be physics credits).

Non-Thesis Option (35 hours required):

Research: 3 hours of 82:299 or 88:299.

13 hours from the disciplines of biology, chemistry, earth science and physics with at least 8 hours of physics. The combined total of the undergraduate and graduate hours in physics shall total 40 semester hours.

8 hours of electives from education or science (these could be physics credits).

Note: The physics education emphasis differs from the Science Education major in that it provides the option of taking either 82:299 or 88:299. It also requires 8 hours of physics with a total of 40 hours in physics in the combined undergraduate and graduate program. The number of undergraduate hours in physics in the physics teaching program of 32 hours, plus the required graduate level physics of 8 hours, totals 40 hours.

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.
 Science and Science Education: 82:130; 82:200; 82:213; 82:290; 82:294.

Requirements in science content:

Thesis option: 10 hours from the disciplines of biology, chemistry, earth science, and physics.
 Non-thesis option: 12 hours from the disciplines of biology, chemistry, earth science, and physics.

Requirements in advanced education:

Thesis option: 6 hours from the courses listed below.
 Non-thesis option: 8 hours from the courses listed below—
 Educational Psychology: 20:214.
 Elementary, Early Childhood, and Middle School/Junior High: 21:141; 21:212.
 Measurement and Research: 25:180; 25:205.

Requirements in research:

Thesis option: 6 hours of —
 Science and Science Education: 82:299 (Research).
 Non-thesis option: 3 hours of —
 Science and Science Education: 82:299 (Research).

Total required hours for major: 36 for thesis option or 37 for 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 may be required by the advisement committee.
2. The student may substitute in each of the categories "science content" and "science education" up to 3 credit hours from 8x:133g, 8x:233, 8x:285, 8x:286, 8x:297, and 82:270. Such substitutions must be approved by the Science Education faculty.

Major in Social Science

This major is available only to students taking Professional Core A or B. A student must select two areas of study, one of which should be her/his emphasis, from the following departments.

- Economics
- Geography
- History
- Political Science
- Psychology
- Sociology and Anthropology

Inquiries for additional information on this major should be directed to the graduate coordinator of social science, College of Social and Behavioral Sciences, or to the Dean of the Graduate College.

Major in 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:

Sociology: 98:200; 98:201; and two of the following three courses—98:160, 98:165, 98:174.

Electives: 6-12 hours in sociology with 3 of these hours at the 200 level; 0-6 hours in approved electives outside sociology.

A reading knowledge of a foreign language is recommended.

Comprehensive examinations, written and/or oral, are required.

Students entering graduate study in this department should have taken the following courses or should be able to demonstrate competency in them.

Sociology: 98:058, 98:060, 98:080, 98:085, and 98:170.

Major in Spanish

The major in Spanish is available on both the thesis and non-thesis options; a minimum of 30-32 semester hours is required for either option. Half of the course work taken (12 hours for the thesis option, 15 hours for the non-thesis option) must be at the 200 level. In the case of the non-thesis option, a research paper must be approved by the candidate's committee and filed with the Department of Modern Languages before the comprehensive examinations may be taken.

Required:

a minimum of 8 hours in literature courses;
 a minimum of 8 hours in linguistics, grammar and/or translation courses;
 one course in civilization or culture (unless previously met).

The remainder of the program will be determined by the student's needs in consultation with her/his advisor. 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.

Teaching Emphasis

This program is offered only on the non-thesis option.

Total required hours: minimum of 34 semester hours of credit, of which at least 16 must be at the 200 level; at least 20 of those credits must represent courses taught in the target language.

Prerequisites: Candidate must hold a valid teaching license. The student who has not completed 70:190, 78:101 and 78:103, or equivalents, before entering the program must add these courses to the requirements stated below.

Required:

Educational Psychology: 20:2143 hours
 Measurement and Research: 25:205 or equivalent3 hours

Spanish:

Courses in methods, one of which must be a methodological topic in 78:226, 78:286 or 78:2896 hours
 Courses in linguistics, one of which must be at the 200 level, and one language-specific6 hours
 Courses in culture and civilization*6 hours
 Courses in literature*6 hours
 Electives in target language.....4 hours

*One of these courses must be at the 200 level. Courses must be taught in the target language.

Candidacy — The Candidate:

- a) must have completed a minimum of 6 graduate credit hours in the Department of Modern Languages with a GPA of at least 3.00;
- b) will be required to demonstrate proficiency in Spanish; and
- c) must have documentation of successful teaching experience.

Candidates must pass a final comprehensive examination, both written and oral. A research paper, written on an aspect of methodology, must be approved by the student's M.A. committee and filed with the Department of Modern Languages before comprehensive exams may be taken.

Translation/Interpretation Emphasis

Primarily an M.A. program dealing with the manipulation of linguistic skills, this emphasis 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 the other for native Spanish speakers. Those whose

Master of Arts Degree

native language is neither Spanish nor English will determine, in consultation with an advisor, 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:

Linguistics: 63:130.

Languages: 70:181.

Spanish: 78:201; 78:220; 78:225.

For native Spanish speakers:

English: 62:234 or 62:260.

Linguistics: 63:130.

Languages: 70:181.

Spanish: 78:220; 78:225.

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.

History: 96:116; 96:124; 96:147.

At least two courses from the following:

For native English speakers:

Languages: 70:180; 70:230.

Spanish: 78:107*; 78:185.*

For native Spanish speakers:

Languages: 70:180; 70:230.

Spanish: 78:107*; 78:185.*

*May be taken only once for credit. 78:107 may not be taken for 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:

Linguistics: 63:192.

Spanish: 78:161; 78:180; 78:195; 78:205; 78:289; 78:299.

For native Spanish speakers:

Linguistics: 63:154; 63:156; 63:192; 63:254 or 63:256.

Spanish: 78:195; 78:289; 78:299.

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 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 advisor will determine how such incomplete requirements will be remedied.

Required:

Measurement and Research: approved course in statistics.*

Communicative Disorders: 51:100*; 51:106*; 51:107*; 51:111*; 51:125*; 51:127*; 51:142*; 51:144; 51:147*; 51:150*; 51:155*; 51:156*; 51:157*; 51:160*; 51:162; 51:165*; 51:174*; 51:195*; 51:210; 51:230; 51:240; 51:241; 51:247; 51:250; 51:255; 51:257 and/or 28:250 (Internship Semester); 51:282; 51:289 (Elective Seminars); 51:290; 51:291; 51:293; 51:299.

Total Program: Non-thesis = 34 hours plus research for 1-3 hours plus a 4-16 hour internship. Thesis = 30 hours plus 6 hours of thesis plus a 4-16 hour internship.

All students must abide by the policies and procedures found in the major manual which is published by the department and available for purchase from the department secretary.

The student, in consultation with the advisor, 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 375 hours in supervised clinical practicum, with a minimum of 250 of those hours at the graduate level. Certificates in specialty areas will be awarded to students who complete the core and a minimum of eight additional hours in any specialty area. Students should consult with their advisor concerning the specialty certificates.

Based on satisfactory completion of an undergraduate degree in Communicative Disorders, course work, clinical assignments, and the internship experience will ordinarily take four semesters and one summer.

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:

Linguistics: 63:125 or 63:130; 63:154; 63:156.

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 32 semester hours required for a master's degree. In such cases, these hours will be specified at the time of the interview.

Required:

Linguistics: 63:201; 63:292; 63:295; 63:297.

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 32 semester hours required to complete the major program.

Students on the non-thesis option are required to complete a comprehensive examination.

Students who wish licensure to teach should request information concerning licensure 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 as a prerequisite a bachelor's degree with a major in technology, technology education, engineering, or some related technical field. This major also requires a student to:

- 1) 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);
- 2) have earned a minimum of 15 semester hours in a major technical field and 8 semester hours in supporting technical subjects;
- 3) have or acquire one year of recent and significant trade or technical experience in industry in her/his particular field of emphasis.

This major is available on both the thesis and non-thesis plan. A minimum of 31 semester hours is required for the thesis plan, 33 semester hours for the non-thesis plan and 35 semester hours for the manufacturing process plan. A core of 12 semester hours is required. An emphasis will consist of 9-15 semester hours and electives. A student may receive 3 to 6 semester hours in 33:299 for a thesis plan. For a non-thesis plan, it is expected that the departmental research paper will be completed in 33:270, 33:292, or other 200-level courses. The successful completion of a written departmental examination (Department of Industrial Technology) is required, and students on non-thesis programs must successfully complete a written final comprehensive examination.

Required core for all three emphases (12 hours):

Industrial Technology: 33:200; 33:270 or 33:299 (3 hrs.); 33:282; 33:292; completion of a departmental research paper or thesis.

English Language and Literature: 62:105.

Three emphases are offered in this major.

A. Industrial Supervision and Management (19-21 hours)

The emphasis for Industrial Supervision and Management provides advanced education for individuals who wish to expand their qualifications for supervisory positions in industry, business and government. The objective of this program is to develop manufacturing professionals with managerial concepts blended with aspects of the industrial environment and problem-solving experiences necessary for positions of leadership and responsibility. The proficiency in these areas will develop and expand the knowledge and skills necessary for positions of leadership and responsibility, and increase productivity and improve the managerial process.

Management: 15:262.

Industrial Technology: 33:258; 33:260; 33:294; 33:295.

Electives approved by advisor (4 hours [thesis plan] or 6 hours [non-thesis plan]). Suggested electives:

Management: 15:247; 15:249; 15:266.

Industrial Technology: 33:119; 33:250.

Psychology: 40:157; 40:158.

Mathematics: 80:172.

Economics: 92:135.

Sociology: 98:114.

B. Industrial Training (19-21 hours)

The emphasis in industrial training provides advanced education for individuals desiring to establish proficiency as trainer, instructional materials developer or as an administrator for technical training programs in industry. The objective of this program is to develop training professionals who can design, develop, implement and manage training programs for personnel, and situations in the industrial and business environment.

Educational Media: 24:205 or

Industrial Technology: 33:119.

Industrial Technology: 33:181; 33:191; 33:193; 33:290.

Electives approved by advisor (7 hours [thesis plan] or 9 hours [non-thesis plan]). Suggested electives:

Educational Media: 24:130; 24:131; 24:235.

Measurement and Research: 25:180.

Industrial Technology: 33:271; 33:280; 33:291; 33:295; 33:297; 33:299.

C. Manufacturing Process Development (non-thesis option only) (23 hours)

This emphasis offers an excellent, continuous education opportunity for individuals with technical preparation to expand their knowledge and skills in areas concerned with manufacturing technology and systems. Establishing a foundation in the research area, operations and quality planning, and applications which is coupled with expanding the areas of manufacturing processes. It is intended to enhance technical knowledge which can then contribute to productivity and quality in the industrial environment.

Industrial Technology: 33:119; 33:143.

Industrial Technology: 33:258 or

Mathematics: 80:172.

Electives in technical laboratory courses approved by advisor (sufficient to reach 23 hours in this emphasis).

Suggested electives:

Industrial Technology: 33:106; 33:113; 33:122;

33:127; 33:134; 33:146; 33:147; 33:152; 33:158; 33:160;

33:172; 33:177; 33:254; 33:284.

Major in TESOL/Modern Languages

This major is normally available on only 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:

Linguistics: 63:192; 63:193 or 63:194; 63:201; 63:256 or 63:289 or 63:295; 63:292; 63:297; for a total of 20 hours.

Required: One of the following language emphases for a minimum total emphasis of 15 hours of which 6 hours must be at the 200 level.

French:

Languages: 70:190.

French: 72:124 or 72:125; 72:180 or 72:203 or 72:207.

Plus course(s) approved by the graduate French advisor.

German:

Languages: 70:190.

German: 74:123; 74:180; 74:203.

Plus course(s) approved by the graduate German advisor.

Spanish:

Languages: 70:190.

Spanish: 78:123 or 78:140 or 78:152; 78:107 or 78:180

or 78:185 or

78:195; 78:205.

Plus course(s) approved by the graduate Spanish advisor.

Master of Arts Degree/ Master of Arts in Education Degree

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 licensure 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 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 advisor.

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) she/he 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 Technology
- Elementary Education
- Elementary Reading and Language Arts
- Middle School/Junior High School Education
- Reading Education
- Secondary Reading

Department of Educational Administration and Counseling

- College/University Student Services
- Elementary Principalship
- 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. 93-96.

Many programs at this level carry with them the requirements for teaching endorsement. In some cases, the student may be building up competency in a field in which she/he has had little or no preparation at the bachelor's level. For these reasons some of the programs must carry with them a substantial number of specific requirements. Whenever possible, however, an effort is made to keep the specific course requirements for each major at a minimum, so that the student, with the help of her/his advisor 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. Licensure in an educational area is a required prerequisite to completion of the major. Students may pursue either the thesis or non-thesis option. A minimum of 30 semester hours is required for this program as follows:

Required: Professional Core A:

Educational Psychology: 20:214 or

Social Foundations: 26:234.

Measurement and Research: 25:205.

Required:

Educational Media: 24:205; 24:232 (3 hrs.); 24:240; 24:299.

Educational Administration: 27:235 or 27:289.

Computer Science: 81:251.

Electives: 6 credit hours are required from the following:

Media: 24:153; 24:170; 24:253; 24:260; 24:297.

Major in Early Childhood Education

The student must be eligible for elementary or early childhood licensure 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.

Master of Arts in Education Degree

Required professional core	6 hours
Educational Psychology: 20:214 or Social Foundations: 26:234. Measurement and Research: 25:205.	
Required curriculum core	8-11 hours
Elementary, Early Childhood, and Middle School/ Junior High: 21:201; 21:289; 21:299; competency in human development.	
Specialty area	9 hours
Elementary, Early Childhood, and Middle School/ Junior High: 21:214; 21:220; 21:221.	
Approved electives	4-7 hours 30 hours

Major in Education of the Gifted

The student must have met licensure 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.

Required professional core	6 hours
Educational Psychology: 20:214 or Social Foundations: 26:234. Measurement and Research: 25:205.	
Required curriculum core	8-11 hours
Elementary, Early Childhood, and Middle School/ Junior High: 21:201; 21:289; 21:299. (Six credit hours of Research are required on the thesis option.)	
Specialty area	9 hours
Elementary, Early Childhood, and Middle School/Junior High: 21:254; 21:255. Measurement and Research: 25:282.	
Approved electives	4-7 hours 30 hours

Major in Educational Technology

This major is designed to prepare educational technology 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 major is available on both the thesis and non-thesis options for a minimum total of 38 semester hours on either option.

Required:	
Educational Psychology: 20:214 or Social Foundations: 26:234. Educational Media: 24:101; 24:131; 24:230; 24:235; 24:240; 24:289; 24:297; 24:299. Measurement and Research: 25:205.	
Electives — 9 credit hours are required from the following:	
Educational Media: 24:130; 24:138; 24:139; 24:145; 24:147; 24:148; 24:150; 24:151; 24:153; 24:155; 24:156; 24:157; 24:170; 24:205; 24:253; 24:260; 24:285; 24:286.	

Major in Elementary Education

The student must be eligible for licensure to teach in the elementary school classroom upon completion of this major. In addition to the professional MAE core, the student must complete a curriculum core, courses in an emphasis area, and electives for a 30-hour (minimum) program.

The program is designed to improve the individual's effectiveness as a classroom teacher, instructional leader, and curriculum developer.

Required Professional Core.....	6 hours
Educational Psychology: 20:214 or Social Foundations: 26:234. Measurement and Research: 25:205.	
Required Curriculum Core	8-11 hours
Elementary, Early Childhood, and Middle School/ Junior High: 21:201; 21:289; 21:299. (Six credit hours of Research are required on the thesis option.)	
EMPHASIS - Select one of the following: Elementary Teaching, Elementary Mathematics, Elementary Science, or Elementary	
Social Studies	8-9 hours

Elementary Teaching Emphasis Area (8-9 hours)

Elementary, Early Childhood, and Middle School/
Junior High: 21:242; 21:243.

One course in the Reading and Language Arts areas.

Mathematics Teaching Emphasis Area (9 hours)

Elementary, Early Childhood, and Middle
School/Junior High: 21:141.

Mathematics - 6 hours from: 80:235; 80:280;
80:281; 80:292; 80:295.

Social Studies Teaching (9 hours)

Elementary, Early Childhood, and Middle
School/Junior High: 21:143; 21:213; 21:243.

Science Teaching Emphasis Area (9 hours)

Elementary, Early Childhood, and Middle School/
Junior High: 21:141; 21:212; 21:242.

Approved electives	4-8 hours 30 hours
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Major in Elementary Reading and Language Arts

This program is designed to prepare teachers specializing in the teaching of Reading and Language Arts in the elementary school. Persons holding an educational license who complete this program qualify for endorsement as a teacher of English/Language Arts in kindergarten and grades 1 to 6. A minimum of 30 semester hours of course work is required for this degree.

Required if not completed at the undergraduate level:

Reading and Language Arts: 23:044; 23:111; 23:113; 23:115;
23:116; 23:140; 23:144.

One course in American literature.

Required:

Educational Psychology: 20:214 or
Social Foundations: 26:234.

Measurement and Research: 25:205.

Reading and Language Arts: 23:210 or 23:212; 23:250; 23:289;
23:290; 23:299.

A minimum of 3 semester hours of course work in a related area.

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 competence in working with young adolescents. It can be varied (or extended) to fit the student's background and goals.

Master of Arts in Education Degree

- Required professional core6 hours
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Measurement and Research: 25:205.
- Required curriculum core8-11 hours
Elementary, Early Childhood, and Middle School/
Junior High: 21:201; 21:289; 21:299; (six credit
hours of research required on the thesis option).
- Specialty area6-8 hours
Elementary, Early Childhood, and Middle School/Junior
High: 21:135; 21:270; competency required in
adolescent psychology.
- Electives: At least one course from the following: 20:151;
21:141; 21:204; 21:297; 23:xxx; and additional courses to
include a minimum of 30 hours for the major. 30 hours

Major in Reading Education

This program satisfies course requirements for teaching endorsement as a Reading Specialist in kindergarten and grades 1-12. Additional endorsement requirements include holding an original education license and evidence of at least one year of experience which included the teaching of reading as a significant part of the responsibility. A minimum of 30 semester hours of course work is required for this degree.

- 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: 23:132; 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;
23:299.

Electives as approved by advisor.

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 teaching endorsement in reading in grades 7-12.

- Required if not completed on the undergraduate level:
Educational Psychology 20:116.
Reading and Language Arts: 23:130; 23:132; 23:140; 23:147;
23:192.
Measurement and Research: 25:181.
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:
Communication and Theatre Arts: 50:103; 50:128.
Communicative Disorders: 51:106.
English Language and Literature: 62:105; 62:193.
Linguistics: 63:130; 63:190.

Department of Educational Administration and Counseling

Major in College/University Student Services

This major is designed to prepare an individual for a career in the administration of student services programs in college and university settings. This major requires a minimum of 44 semester hours.

- Required Professional Core.....6 hours
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Measurement and Research: 25:205.
- Higher Education Administration Core29 hours
Educational Administration: 27:218; 27:256; 27:260;
27:264; 27:289 Seminar (one is required for 3 hrs.);
27:290 Practicum (two are required for 6 hrs.);
27:291 (6 hrs.); 27:299.
- Electives from the following.....9 hours
Educational Psychology: 20:214.
Measurement and Research: 25:180; 25:181.
Social Foundations: 26:234.
Educational Administration: 27:235; 27:250; 27:252;
27:256; 27:262; 27:285; 27:289 (Advanced Computer
Applications, sec. xx).
Counseling: 29:105; 29:124; 29:125; 29:205; 29:220;
29:226; 29:227. 44 hours.

Note: Upon advisement, some students may substitute course work for practicum and/or internship. A license to teach is not required for this major.

Major in Elementary Principalship

This major requires a minimum of 33 semester hours. The student must complete the usual degree and licensure/endorsement 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.

- Required Professional Core.....6 hours
Educational Psychology: 20:214 or
Social Foundations: 26:234.
Measurement and Research: 25:205.
- Required Educational Administration Core.....27 hours
Educational Psychology: 20:116.
Educational Administration: 27:201; 27:204; 27:215;
27:220; 27:221; 27:230; 27:235; 27:289 (section xx—
Administrative Applications in Field Settings—2 hrs.)
Practicum in an appropriate area. 33 hours

Major in School Counseling

Students completing this program will be eligible for K-12 licensure in School Counseling. Students must have successful teaching experience.

This major requires a minimum of 54 semester hours.

- Required45 hours
 - Educational Psychology: 20:142 or Psychology: 40:125.
 - Educational Psychology: 20:235.
 - Educational Psychology: 20:214.
 - Measurement and Research: 25:205.
 - Counseling: 29:103; 29:105; 29:124; 29:125; 29:210; 29:220; 29:226; 29:227; 29:228; 29:250; 29:254; 29:289.
 - Required Practicum and Internship.....9 hours
 - Counseling:
 - 29:290 (3 hrs.)
 - 29:291 (6 hrs.)
- 54 hours

Major in Secondary Principalship

This major requires a minimum of 33 semester hours. The student must complete the usual degree and certification/endorsement requirements and must complete a minimum of one year of successful teaching appropriate to the major prior to graduation. For endorsement in this area the student must have five (5) years of teaching experience, three of which must have been as a classroom teacher at the secondary level.

- Required Professional Core.....6 hours
 - Educational Psychology: 20:214 or Social Foundations: 26:234.
 - Measurement and Research: 25:205.
 - Required Educational Administration Core.....27 hours
 - Educational Psychology: 20:116.
 - Educational Administration: 27:201; 27:204; 27:215; 27:227; 27:228; 27:230; 27:235; 27:289 (Sec. XX—Administrative Applications in Field Settings—2 hrs.)
 - Practicum in an appropriate area.
- 33 hours

Department of Educational Psychology and Foundations

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
- Social Foundations: 26:234.
- 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.
 - Measurement and Research: 25:181.
- Required: completion of 9 hours in one of two emphases.*
- Electives: a minimum of 6 hours selected with approval of advisor.

***Emphases:**

Development and Learning:

- Educational Psychology: 20:210; 20:220; 20:230; 20:235; 20:289 or 20:290.

Evaluation:

- Educational Psychology: 20:193; 20:290.
- Measurement and Research: 25:180; 25:270; 25:280; 25:281; 25:289.

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 A6 hours
 - Educational Psychology: 20:214 or Social Foundations: 26:234.
 - Measurement and Research: 25:205.
 - Required: Special Education Core.....6 hours
 - Special Education: 22:289; 22:290.
 - Emphasis in Special Education*18 hours
- 30 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 21:2703 hours
 - Special Education: 22:240; 22:245; 22:2908-9 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

Master of Arts in Education/Master of Business Administration Degree/Master of Music Degree

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:

Special Education: 22:170; 22:174; 22:192 (Tutorial).

Phase II — required:

Special Education: 22:192 (Group); and two from the following — 22:180; 22:181; 22:183; 22:187.

Also required:

Special Education: 22:240; 22:245; 22:289 (2 hrs.); 22:290.

Program Certificate

Graduate Level Endorsement Program: Advanced Study Certificate Multicategorical Resource, K-6 Program

Graduate Level Endorsement Program: Advanced Study Certificate Multicategorical Resource, 7-12 Program

Master of Business Administration Degree

Graduate study in business at UNI 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 or show that they have completed equivalent courses in previous academic work. Candidates for the degree are also required to submit a research paper and pass a comprehensive examination in the last semester of the program.

Required:

Accounting: 12:262	3 hours
Marketing: 13:263	3 hours
Management: 15:249; 15:262; 15:265; 15:266; 15:267; 15:289	21 hours
Finance: 16:263	3 hours
Economics: 92:260	3 hours
Electives	3 hours
	33 hours

Detailed information for the M.B.A. may be obtained from the College of Business Administration, UNI.

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:

- Graduate Music Core.....11 hours
- Music Literature: 59:221.
- Music Theory: 58:210; 58:211; 58:212.
- One course from the following —
- Music Literature: 59:110; 59:111; 59:112; 59:114; 59:115.
- Specialization8 hours
- Applied Music: 54:254 (applied composition).
- Electives: 11 hours, primarily in the areas of music literature and theory.....11 hours
- 30 hours

Major in Conducting

This major requires a minimum of 30 semester hours completed in the following program:

Required:

- Graduate Music Core.....11 hours
- Music Literature: 59:221.
- Music Theory: 58:210; 58:211; 58:212.
- One course from the following—
- Music Literature: 59:110; 59:111; 59:112; 59:114; 59:115.
- Specialization11 hours
- Music Techniques: 56:221* or 56:222* (6 hrs.).
- Music Literature: 59:131, 59:140 or 59:142 (3 hrs.).
- Music, Organizations and Ensembles: 2 hours in ensembles* (participation required each semester of residence).
- Electives: as approved by advisor8 hours
- 30 hours

Additional requirements: Conducting recital/document; piano proficiency.

*56:221, 56:222, and ensembles not offered during summers.

Major in Music Education

This major is offered on both the thesis and non-thesis options for a minimum total of 30 hours.

Required:

- Graduate Music Core.....11 hours
- Music Literature: 59:221.
- Music Theory: 58:210; 58:211; 58:212.
- One course from the following —
- Music Literature: 59:110; 59:111; 59:112; 59:114; 59:115.
- Music Education Core.....7 hours
- Music Education: 57:221; 57:230; 57:245.
- Specialization (Choose from A, B1 or B2, or C).....12 hours
- 30 hours

A. Choral (12 hours)

- Music Techniques: 56:122; 56:135.
- Music Education and Methods: 57:130.
- Music Literature: 59:131.
- Electives*: 4 hours.

B. Instrumental (12 hours)

Option 1 — Band

- Music Techniques: 56:121.
- Music Education and Methods: 57:255.
- Music Literature: 59:142.
- Electives*: 4 hours.

Option 2 — Jazz

- Music Techniques: 56:152 (three levels).
- Music Education and Methods: 57:255.
- Music Theory: 58:127.
- Electives*: (including course work in jazz pedagogy) 4 hours.

C. Orff-Schulwerk Training (12 hours)

- Music Education and Methods: 57:175; 57:176; 57:177 [Orff-Schulwerk, Levels I, II, III].
- Electives*: 3 hours.

*Electives—as approved by Graduate Coordinator. Note: A maximum of two hours of ensembles (53:xxx) and four hours of applied music (54:xxx) may be counted toward fulfilling minimum degree requirements. Students wishing to write a master's thesis in music education will register for six hours of Research (52:299) in lieu of electives and should expect, therefore, to complete a total of 32-33 hours for the degree.

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 Literature: 59:221.
- Music Theory: 58:210; 58:211; 58:212.
- One course from the following —
- Music Literature: 59:110; 59:111; 59:112; 59:114; 59:115.
- Specialization:
- Music Literature: 59:299 (research for thesis — 6 hrs.); 59:1xx (music literature — 7 hrs.)13 hours
- Electives: (maximum of 2 hrs. may be in applied music)6 hours
- 30 hours

Major in Performance

This major requires the completion of a minimum of 30 hours and a performance recital acceptable to the student's recital committee.

Required:

- Graduate Music Core.....11 hours
- Music Literature: 59:221.
- Music Theory: 58:210; 58:211; 58:212.
- One course from the following —
- Music Literature: 59:110; 59:111; 59:112; 59:114; 59:115.
- Specialization.....12-14 hours
- Applied Music: 54:2xx (10 hrs.).
- Music Literature: 59:120 (2-4 hrs.).
- Electives primarily in the areas of theory and music literature. (With approval of the Graduate Coordinator, a maximum of 4 hours in Opera/Music Theatre may be counted.)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.

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 pages 93-94) 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 UNI 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:299* as research credit.

Candidacy. The same requirements apply for this degree as for other master's degrees listed in the current UNI 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 departments 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 should be made at least two months in advance of 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 and 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.

Master of Public Policy

The Master of Public Policy is a professional interdisciplinary degree program providing specialized and advanced training for students wishing to assume roles as policy analysts in complex organizations, principally in the governmental and non-profit sectors of society.

Core courses provide thorough coverage of social science theory as it has developed to analyze public policy, together with a philosophical orientation to the special ethical questions which arise in policy contexts.

Courses in the Methods Sequence will enable students to acquire technical training in the formally rigorous methods of policy analysis required of independent professionals.

Focus courses allow a student to develop understanding of a particular substantive or methodological area of policy or analysis. An Internship with a public policy organization both introduces the students to the professional environment and allows application of theory and methods to actual policy problems.

Admission to the Program is competitive. Entering students are presumed to retain basic knowledge, from their undergraduate training, of statistical methods, micro-economics, and American governmental process. Courses are available, outside the degree program for students who lack such training (e.g., 98:080, 92:054, and

94:014). The MPP is available only on a non-thesis option.

Required core17 hours
The following courses are ordinarily required. For students with previous instruction in these areas, substitute courses will be approved.

Economics: 92:117.

History: 96:225.

Philosophy: 65:245.

Political Science: 94:153, 94:173.

Public Policy: 95:205*.

*MPP students enroll three times in 95:205, Research Seminar in Public Policy (1 hr.).

Methods Sequence9 hours

Required: three of the following courses or substitutes as approved

Economics: 92:169.

Political Science: 94:275.

Public Policy: 95:210, 95:215.

Focus Courses15 hours

MPP students will select a focus area to complete their study of policy. In consultation with their faculty advisors, they may choose to focus either on a substantive area of public policy concern (e.g., urban policy, environmental policy, human services policy, criminal justice policy) or on a set of methodological issues (e.g., measurement of public output or evaluation methods).

Once the focus area is selected, students will select appropriate graduate courses, again in consultation with the faculty, to deepen their understanding of particular public policy concerns. If focus courses have prerequisites which instructors choose not to waive, students may take such courses outside of the degree program.

Internship4 hours

Prerequisites: 94:173, and either 92:169 or 94:275 or an approved substitute.

The Internship may be undertaken during the summer following the first or second year of classes or during any other acceptable period. This requirement may be waived at the discretion of the Program Director for students with extensive career experience.

Total Credits41-45 hours

In addition to course and internship requirements, students must pass written and oral comprehensive examinations and submit a research paper.

Outline of Organization and Requirements for Master's Degrees

Outline of Organization and Requirements for Master's Degrees, University of Northern Iowa

	Master of Arts In Education	Master of Arts
A. Purpose and Objectives	<ol style="list-style-type: none"> Preparation of school service personnel <ol style="list-style-type: none"> administrators supervisors counselors school psychologists Advanced preparation of elementary and secondary teachers Preparation of community college teachers 	<ol style="list-style-type: none"> Graduate study in field specialization Advanced preparation of elementary and secondary teachers Preparation for college teaching
B. Program Options	<ol style="list-style-type: none"> Thesis plan Non-thesis plan 	<ol style="list-style-type: none"> Thesis plan (open to all) Non-thesis plan (except for majors in Communication and Theatre Arts, Geography, General Psychology, and Sociology)
C. Eligibility for Candidacy	<ol style="list-style-type: none"> Unconditional admission to graduate study General graduate examinations and dept. candidacy examinations passed Hold or be eligible for Iowa Provisional License or equivalent* 	<ol style="list-style-type: none"> Unconditional admission to graduate study General graduate examination(s) and dept. candidacy examinations passed
D. Program Requirements	<ol style="list-style-type: none"> On the non-thesis plan: at least one research paper approved by the department and filed in the department office On all majors: <ul style="list-style-type: none"> 25:205 Educational Research—3 hrs. 20:214 Foundations of Instructional Psychology—3 hrs. or 26:234 Philosophy of Education On some majors: teaching experience as specified departmental research 	<ol style="list-style-type: none"> On the non-thesis plan: at least one research paper approved by the department and filed in the department office On certain majors: work outside the major, or competence in a foreign language, or Prof. Core A or B (see major for specific requirements) <ul style="list-style-type: none"> Core A (1) 20:214 or 26:234—3 hrs. (2) 25:205—3 hrs., or course (3) Methods course in major field, or 200-level course in Education or Teaching Core B** (1) 27:250 Teaching in College—3 hrs. (2) 27:252 Current Issues in Higher Educ.—2 hrs. (3) xx:297 Practicum—2 hrs.

*Except for majors in College/University Student Services and General Educational Psychology.

**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. 112 for specific information.

Master of Music — See pp. 112-113 for specific information.

Master of Philosophy — See pp. 114-115 for specific information.

Master of Public Policy — See p. 115 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. 117-119).

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. The major is available on a thesis or non-thesis option. If no thesis was written for the Master's Degree, one must be completed for this program. Not more than six hours of research credit may be included in the 30 hours of post-master's credit.

Each candidate's program will include a minimum of 30 hours of science content beyond the bachelor's degree including 12 hours outside the subject area of emphasis and 16 hours within a subject area of emphasis. This may include credit from the M.A. The candidate's program of study beyond the bachelor's degree must satisfy the following requirements:

Required Science Education/Education: 12 hours—(Other courses in Science Education/Education with the approval of the student's committee.)

Science and Science Education: 82:213; 82:290; 82:294.

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 credit from the M.A. degree.

Required research related courses: 9 hours—

Measurement and Research: 25:180; 25:205.

(Other courses may be selected from the electives below which are marked by an asterisk.)

Research Paper or Thesis: 6-9 hours—

Science and Science Education: 82:299.

Required Internship: 3 hours—

Teaching: 28:250 or

Science and Science Education: 82:297.

Additional hours, if required, may be selected from these suggested electives:

Elementary, Early Childhood, and Middle School/Junior High: 21:141; 21:142; 21:212; 21:242; 21:254; 21:270.

Measurement and Research: 25:181*; 25:281*; 25:300*; 25:301*; 25:302*.

Social Foundations: 26:220; 26:234.

Educational Administration: 27:212; 27:226.

Science and Science Education: 82:270.

Information concerning details of the major is available from the Chair of the Science Education Faculty or the Dean of the College of Natural Sciences.

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 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 advisor. 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 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 examinations: (a) the Aptitude Test of the Graduate Record Examination, and (b) Departmental Examinations.

A student's application, including program, must be approved by the departmental committee, the head of her/his department, the dean of the appropriate college and the Dean of the Graduate College. Normally the student may be admitted to candidacy during or immediately following the first semester of enrollment following the receipt of the master's degree, but capable students may be admitted to candidacy for the Specialist in Education Degree at any time after being admitted for the master's degree.

Graduation Requirements

The student shall complete the general requirements for the Specialist in Education Degree and shall meet the requirements as specified by the departmental committee using a combination of graduate courses taken for the master's degree and beyond. The student must be eligible for licensure as a teacher, if required for the major, before the degree will be granted. In some cases, appropriate teaching endorsement will be recommended for those who meet the standards set by the university in conjunction with the appropriate licensure agency. Receipt of the degree is not a necessary prerequisite to recommendation for the appropriate endorsement(s) unless state standards require such. Students seeking only specific endorsement will not be required to secure admission to candidacy, complete the thesis requirement, or take comprehensive examinations. A cumulative graduate grade point average of 3.00 or better will be required prior to recommendation for endorsement(s).

Hours of Credit. A student must earn a minimum of 30 semester hours of graduate credit beyond the master's degree. Credit earned in excess of that required for the master's degree may be applied toward the 30-hour requirement if that credit is earned during the final period of enrollment for the master's degree.

Certain limitations on the amount and kinds of credit must be observed:

200-Level Credit. A student must earn at least 24 semester hours of credit in courses numbered 200 or above, counting both the master's and the post-master's work but not counting any *Research* credit.

Specialist in Education Degree

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. 95.) 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. 94.)

Scholarship. A cumulative grade index of 3.00 (B average) must be earned at the University of Northern Iowa in all courses attempted after receiving the master's degree. No credit toward graduation is allowed for a course in which a grade below C is earned.

Candidacy. The requirements for admission to candidacy are described above.

On-Campus Residence. A student must have completed at least 18 hours in residence credit on campus, including one semester or two summer sessions of full-time enrollment in residence after the master's degree.

Examinations.

- (a) A student must pass a comprehensive oral examination, including a defense of the thesis, if any. The examination will be conducted and evaluated by the departmental committee and a faculty member designated by the Dean of the Graduate College, although other members of the faculty may participate.
- (b) A student may be required by the departmental committee to 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 pp. 95-96.

Application for Graduation. The same regulations apply as for the master's degree. See p. 96.

Attendance at Commencement. The same regulations apply as for the master's degree. See p. 96.

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 Educational Psychology and Foundations

[Note: An experimental program is currently being used by the department for additional details, consult the Department of Educational Psychology and Foundations.]

Major in School Psychology

Note: An experimental program is currently being used for this major. For details, contact the department.

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: 21:152.

Special Education: 22:150.

Measurement and Research: 25:181 or

Psychology: 40:149.

Social Foundations: 26:120.

Psychology: 40:008; 40:118.

Required minimum program:

Educational Psychology: 20:214 or

Social Foundations: 26:234.

Educational Psychology: 20:170; 20:194 (6 hrs.); 20:230; 20:240;

20:289; 20:290; 20:291 (6 hrs.); 20:299 (6 hrs.).

Measurement and Research: 25:180; 25:205; 25:281; 25:282; 25:283.

Two approved courses in counseling.

One approved course in speech or language development.

One approved course in reading.

Department of Special Education

Major in Special Education

Administration Emphasis:

To be eligible for this degree the student must be licensed as a teacher of the handicapped, school psychologist, speech and hearing clinician, or school social worker.

Required:

Educational Psychology: 20:214 or

Social Foundations: 26:234.

Measurement and Research: 25:205.

Educational Administration: 27:201 or 27:221 or 27:228;

27:141 or 27:204 or 27:210 or 27:212 or 27:226; 27:230.

Special Education: 22:152; 22:184; 22:278; 22:289; 22:290.

Two courses in mental retardation, emotionally disturbed or speech correction.

Eight (8) semester hours chosen from non-professional course work

Curriculum Consultant Emphasis:.....

The emphasis prepares the qualified person to serve as a curriculum consultant for special education in local, intermediate, or state school systems provided that licensure standards for such positions are met, including degree, approval, and teaching experience (type and duration) requirements. An advisor should be consulted on the specifics of licensure requirements.

To be eligible for this degree, the student must be licensed as a teacher of the handicapped upon completion of the program requirements, and the student should consult a department advisor regarding the course work required for this licensure if such has not yet been completed. To enter the program, the candidate must have completed at least one year of successful teaching, although more is recommended.

Required:

Educational Psychology: 20:214 or
Social Foundations: 26:234.

Spécial Education: to be taken concurrently— 22:240, 22:245
and 22:290; 22:278; 22:289; 22:290.

Measurement and Research: 25:205.

Educational Administration: 27:212 or 27:226; 27:220 or 27:227;
27:230.

Eight (8) semester hours chosen from non-professional
course work.

Doctor of Education Degree

This program 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 three 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 three areas of intensive study provide for a specialized focus on practice. The three intensive study areas are: *Counseling, Curriculum and Instruction, and Educational Administration*. (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 three 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.)

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 Associate Dean of the College of Education. Descriptive materials and application packets may be obtained from either office.

Admission to the program will be granted to those applicants who provide evidence of prior academic success; successful and appropriate professional experience; effective oral, written, and interpersonal communication skills; and professional and academic goals which may be effectively served by the degree program offered. Normally, an admission interview will be required. Additional criteria may be established by an area of intensive study since some previous specialization work is presumed.

1. The applicant must hold a master's degree from a regionally accredited institution of higher education.
2. Each applicant must submit transcripts of all previous academic work. Applicants with a grade point average of less than 3.5 for all prior graduate work will not usually be considered for regular admission.
3. The applicant must have completed the Graduate Record Examination (GRE) General Test (verbal, quantitative, and analytical) and the Graduate Record Examination Advanced Test in Education.
4. The applicant must have a minimum of three years of professional educational experience.
5. Three letters of recommendation must be submitted from individuals familiar with the applicant's potential for advanced professional study, at least one from a professor familiar with the applicant as a student and at least one from an educational employer/supervisor.
6. 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.

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. Provisional degree status will not be considered for applicants whose admission files are incomplete. 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 advisor will be appointed for each student. In most instances, the advisor 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 advisor 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.

Doctor of Education Degree

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 advisor will make recommendations regarding the applicability of transfer credit.

4. **Residence Credit.** Following admission to the Doctor of Education program, the student 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. Doctoral students who are employed at least one-half time by an academic unit of the University of Northern Iowa may fulfill the residency requirement by taking nine credit hours during each of two consecutive academic year semesters. This requirement will apply to all students admitted for the Summer 1991 semester and thereafter. 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 including dissertation seminar.
- 2) The candidate will have satisfied the research proficiency requirement and have received preliminary approval of the dissertation proposal.
- 3) The examination, prepared and evaluated by the candidate's doctoral committee, will be administered in written form.
- 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 and

assessed a fee for 19:300, the post-comprehensive "course" registration number.

- 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.** The student, in conjunction with her/his advisor, 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.
11. **Abstracts of Dissertation.** Three (3) copies of an abstract of the dissertation must be filed in the Graduate College Office at the time of final deposit of the dissertation. Regulations for the dissertation also apply to the abstract. The abstract must not exceed 600 words in length. Please see the most current edition of *"Thesis and Dissertation Manual,"* for details.
12. **Microfilm Agreement.** A "Microfilm Agreement" and "Survey of Earned Doctorates" must be completed and returned to the Graduate College Office with the final dissertation.

The University of Northern Iowa participates in a program sponsored by the Association of Research Libraries and conducted by University Microfilms, Ann Arbor, Michigan, for reproduction of doctoral dissertations on microfilm. If the dissertation has been copyrighted, this information must be included on the university agreement form.

13. **Dissertation Fees.** Several fees are required in connection with the dissertation; these 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 most current edition of the *"Thesis and Dissertation Manual,"* for the amount of each of the above fees.

The binding, microfilming, and copyrighting fees must be paid at the UNI Controller's Office and a copy of the receipt submitted to the Graduate College Office at the time the final copy of the dissertation is deposited.

14. **Application for Graduation.** Active candidates for the Doctor of Education Degree must make application for graduation on appropriate university forms. These forms may be obtained from the Office of the Registrar. Active candidates must file application for graduation by the deadline dates designated by the Registrar and available from the Graduate College.

15. Attendance at Commencement. The candidate for the Doctor of Education Degree is expected to secure the appropriate academic costume and appear at commencement for the awarding of the degree.

Program Requirements: Doctor of Education

The program of study consists of three components: the Professional Common Core, Advanced Professional Studies, and the Dissertation. While there are discrete elements in the program, ideally all of the work should be seen as interrelated and focused on a professional career interest. The dissertation, especially, should be seen as an integrating, culminating experience rather than as an "add on" following course work.

- I. **Professional Common Core** — 18 hours.
Interdepartmental Education: 19:301; 19:302; 19:306; 19:307; 19:310; 19:311.
- II. **Advanced Professional Studies** — 30-33 hours.
This is the component of the program that relates to and supports the student's professional career goal. Students will elect one of three 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 three areas of intensive study are:
Counseling
Curriculum and Instruction
Educational Administration
- III. **Dissertation** — 9-12 hours.
This is the program component in which the student demonstrates proficiency in the integration of theory and practice, i.e., it involves the application of existing knowledge and/or results of individual research to an educational problem or situation.
Required:
Interdepartmental Education: 19:389 (3 hours);
19:399 (6-9 hours).

Doctor of Industrial Technology Degree

The University of Northern 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 technology education, trade and industrial education, and technical institute education. This degree program also 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 fields of education and industry. Programs emphasize the development of a thorough knowledge of (a) industrial technology as an intellectual discipline, (b) 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 practices in the field of industrial technology while developing in each student the interest and desire to commit the time and 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 technology education, 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 technology education, trade and industrial education, technical institute education, and industrial technology programs at the local, area, state, regional, and national levels.
3. Administrators of technology education, 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, Technology Education, Technology or a related technical program, from any accredited institution may apply for admission to the Doctor of Industrial Technology Degree program. Application is made through the Dean of the Graduate College. Individuals indicating an interest in the program will be given appropriate application forms, a description of the program, and a copy of the policies and procedures which apply to this degree.

Applicants in the final semester or summer session of work on the master's degree may submit application materials and be admitted on *provisional degree status* until the master's degree is completed.

Types of Admissions

Admission to the Doctor of Industrial Technology Degree program may be granted on a *degree status* or *provisional degree status* basis.

1. **Degree Status Admission.**
 - a) The applicant must hold a master's degree with an education or industry specialization in a content field in or related to industrial technology; the degree must have been granted by an accredited institution.
 - b) Each applicant must have an overall grade point average of 3.2 on **all** prior graduate course work.
 - c) The applicant must have completed the Graduate Record Examination and made arrangements to have his/her scores in the verbal, analytical, and quantitative sections forwarded with their application materials.
 - d) Three references from persons familiar with the academic and professional potential of the applicant must be submitted which support the applicant's request for admission to the program.
 - e) Applicants for whom English is not their first language must complete the Test of English as a Foreign Language Examination (TOEFL) and achieve a score of at least 550.
 - f) Each applicant must have a minimum of three years of 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

Doctor of Industrial Technology Degree

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 advisor 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 advisor will be responsible for recommending members for appointment to the faculty advisory committee. The student should then specify in a letter to the Graduate Coordinator the rationale, for each graduate faculty member recommended to serve on the committee. The committee will consist of three members from the Department of Industrial Technology, two members outside the department, and a representative of the Graduate College assigned by the Graduate College Dean. Eligible committee members from within the Department of Industrial Technology will serve as chair and co-chair. The six committee members must be members of the University of Northern Iowa Graduate Faculty. An expansion of the committee may occur if a non-faculty person agrees to serve due to expertise or as a representative of an area of knowledge. Approval shall comprise a written petition submitted in the normal procedure. Such personnel will participate in all committee responsibilities except for signature decisions. This advisory committee shall have the responsibility for the following:

1. Personal interview with student after completion of the Professional Career Development Plan.
2. Approval of the application for candidacy and program of study for the individual student.
3. Preparation and evaluation of comprehensive written and oral examinations.
4. Determination of any remedial requirements after comprehensive written and oral examinations are completed.
5. Approval of publication requirement before allowing student to submit dissertation proposal.
6. Approval of dissertation proposal and supervision of dissertation effort.
7. Final approval of completed dissertation.

8. Preparation and evaluation of oral examination over dissertation.

9. Recommendation of candidate for degree.

All but one of the voting committee members must approve all actions of the committee.

Should it then be necessary to request changes in the composition of the committee, the graduate student must specify in a letter to the Graduate Coordinator the rationale for the replacement. A disagreement in perspective, thought or position may not be cause for replacement. Any faculty member choosing to resign from the committee must submit a letter of request to the Graduate Coordinator.

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 will be allowed for courses in which the earned grade is below C- and a maximum of 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 (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 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 session, two (2) hours.
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.

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, analytical, and quantitative sections of the Graduate Record Examination in order to be considered for *degree status* admission.

- b. **Departmental Candidacy Examination.** The Departmental Candidacy Examination for the DIT degree program is termed the Professional Career Development Plan. It is based on the candidate's career goal and it will define the planned program of study. It will also serve as a basis for self evaluation, faculty advisement and for the pursuant completion of the candidate's degree program. The content of the Professional 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 Professional Career Development Plan requires both a written component and an oral interview. The Professional 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 Professional Career Development Plan which requires approval by the candidate's faculty advisory committee.

- c. **DIT Comprehensive Examinations.** The comprehensive examination, is intended to be an evaluation of the candidate's mastery of the entire planned program of study, including the tools of research in which competence has been certified. It will evaluate the candidate's mastery of the subject at or near the end of the developed program but prior to initiating the research activity for the dissertation. It should be prepared, administered, and evaluated by the candidate's faculty advisory committee upon completion of all core program requirements, excluding dissertation research work, and upon the completion of at least 80% of the proposed elective courses in the program. The written portion will consist of three 4-hour periods. The dates will be scheduled in consultation with the advisor. Upon satisfactory completion of the written portion, the faculty advisory committee will conduct the oral portion with the candidate present.

Successful completion of both the written and oral portions of the comprehensive examination are essential for completion of the DIT degree program. The comprehensive examination will be evaluated at a convened meeting of the faculty advisory committee and reported as satisfactory or unsatisfactory to the Graduate Dean via the Graduate Coordinator and Head, Department of Industrial Technology.

In the event of a report with three or more votes of "satisfactory with reservations" in either portion, the exact stipulations of the committee should be recorded on the report form. The statement must specify the time allowed for satis-

fyng the stipulations and must be specific in defining the area if further examination in a particular area is necessary, or in describing any additional courses, actions or procedures that are required. The examination cannot be deemed complete or reportable until such stipulations have been satisfied.

Successful completion of the comprehensive examination will be reported if five of six committee members indicate a satisfactory report on both the written and the oral portions of the comprehensive examination. In case of a report of unsatisfactory on a portion of the comprehensive examination the examination must be convened in the next succeeding semester or session. A candidate will be permitted two opportunities to achieve a satisfactory report. A third opportunity will only be allowed with a special approval by the department head upon the recommendations of five of the six on the faculty advisory committee. The candidate achieving an unsatisfactory report in the final opportunity by the convened faculty advisory committee will not be permitted to continue or complete the program of graduate studies, and upon submission of the report form to the Head, Department of Industrial Technology, and Graduate Dean via the Graduate Program Coordinator, the faculty advisory committee for this candidate will be dissolved.

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 and assessed a fee for 33:300, the post-comprehensive "course" registration number.

- 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 four 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 three copies of the dissertation must be on 16 pound (minimum weight), 100 percent rag-content, white paper; erasable paper is not acceptable. In addition, two copies should be delivered to the department office.

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 most current edition of the "Thesis and Dissertation Manual" (obtainable from the Graduate College) for details.

11. **Microfilm Agreement.** A "Microfilm Agreement" and "Survey of Earned Doctorates" must be completed and returned to the 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.

Doctor of Industrial Technology Degree

12. Dissertation Fees. Several fees are required in connection with the dissertation; these include:

- a. A binding fee for the two library and two 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 most current edition of the *"Thesis and Dissertation Manual"* for the amount of each of the above fees.

The binding, microfilming, and copyrighting fees must be paid at the UNI Controller's Office and a copy of the receipt submitted to the Graduate College Office at the time the final copies of the dissertation are deposited.

Graduation Requirements

The following requirements for graduation apply to all students in 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 session.
5. **Attendance at Commencement.** The candidate for the Doctor of Industrial Technology Degree is expected to secure the appropriate academic regalia and appear at commencement for the awarding of the degree.

Program Requirements: Doctor of Industrial Technology

It is the student's responsibility to be familiar with all degree program requirements and take the initiative in meeting established guidelines. This specific information may be obtained from the Graduate Programs Coordinator in the Department of Industrial Technology.

Required Core Program

- a) Industrial Technology Foundations—
Industrial Technology: 33:375 (3 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: 25:180g
(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 48.

Courses 300-399 are primarily designed for doctoral students.

Students are classified as follows:

	Earned Semester Hours
Freshman.....	less than 30
Sophomore.....	30-59
Junior.....	60-89
Senior.....	90 and over

Graduate classification is earned by admission to graduate study.

Course Numbers Common to Many Departments

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

059, 159, 259—Reserved for temporary courses of a special or experimental nature.

133 or 233 Workshop—1 to 6 hrs. Offered for special groups as announced in advance. Students may take work in one or more workshops but may not use more than 6 hours toward graduation.

179 Cooperative Education—1-6 hrs. For students who wish to apply classroom learning to field experience. Requires approval by the faculty supervisor and the head of the academic department granting credit for: placement contract, project, and credit arrangements. Credit may not be applied to a major or minor without approval by the department offering the major or minor. Co-op staff develop placements, arrange student interviews with employers, and maintain contact with student and employer during the Co-op experience. May be repeated for a maximum of 12 hours credit. (See page 46.)

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 46.)

19P Presidential Scholars Research—1-3 hrs. For Presidential Scholars only. Credit and topic to be approved by the Presidential Scholars Board. May be repeated once for a maximum of 6 hours.

198 Independent Study—Hours to be arranged in advance. A provision for undergraduate students to do work in a special area not offered in formal courses. (Does not provide graduate credit.) Permission of the head of the department offering the work is



required. Projects must be approved well before the beginning of the semester in which the work is to be done. (See page 47.)

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 or 385 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 or 397 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 95, 118, and 124.

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 7-8 and 72 for additional information.)

Courses of Instruction Course Number Guide

Guide to Course Numbers

Alphabetical Order

12 Accounting
99 Anthropology
60 Art
84 Biology
89 Biology at Lakeside Laboratory
86 Chemistry
71 Chinese
50 Communication and Theatre Arts
51 Communicative Disorders
81 Computer Science
29 Counseling
31 Design, Family and Consumer Sciences
87 Earth Science
92 Economics
19 Education, Interdepartmental
27 Educational Administration
20 Educational Psychology
21 Elementary, Early Childhood, and Middle School/Junior High
62 English Language and Literature
16 Finance
72 French
97 Geography
74 German
41 Health
44 Health, Physical Education, and Leisure Services, Interdepartmental
96 History
68 Humanities
69 Humanities and Fine Arts, Interdepartmental
00 Individual Studies
33 Industrial Technology
66 Journalism
70 Languages
43 Leisure Services
35 Library Science
63 Linguistics
15 Management
13 Marketing
80 Mathematics
25 Measurement and Research
24 Media
08 Military Science
52 Music
54 Music, Applied
57 Music Education and Methods
59 Music Literature
53 Music, Organizations and Ensembles
56 Music Techniques
58 Music Theory
65 Philosophy
88 Physics
42 Physical Education
94 Political Science
79 Portuguese
40 Psychology
95 Public Policy
23 Reading and Language Arts
64 Religion
77 Russian
30 Safety Education
82 Science and Science Education

26 Social Foundations
90 Social Science
45 Social Work
98 Sociology
78 Spanish
22 Special Education
28 Teaching
01 University, Interdisciplinary

Code Number Order

00 Individual Studies
01 University, Interdisciplinary
08 Military Science
12 Accounting
13 Marketing
15 Management
16 Finance
19 Education, Interdepartmental
20 Educational Psychology
21 Elementary, Early Childhood, and Middle School/Junior High
22 Special Education
23 Reading and Language Arts
24 Media
25 Measurement and Research
26 Social Foundations
27 Educational Administration
28 Teaching
29 Counseling
30 Safety Education
31 Design, Family and Consumer Sciences
33 Industrial Technology
35 Library Science
40 Psychology
41 Health
42 Physical Education
43 Leisure Services
44 Health, Physical Education and Leisure Services, Interdepartmental
45 Social Work
50 Communication and Theatre Arts
51 Communicative Disorders
52 Music
53 Music, Organizations and Ensembles
54 Music, Applied
56 Music Techniques
57 Music Education and Methods
58 Music Theory
59 Music Literature
60 Art
62 English Language and Literature
63 Linguistics
64 Religion
65 Philosophy
66 Journalism
68 Humanities
69 Humanities and Fine Arts, Interdepartmental
70 Languages
71 Chinese
72 French
74 German
77 Russian
78 Spanish
79 Portuguese
80 Mathematics
81 Computer Science
82 Science and Science Education
84 Biology

86 Chemistry
87 Earth Science
88 Physics
89 Biology at Lakeside Laboratory
90 Social Science
92 Economics
94 Political Science
95 Public Policy
96 History
97 Geography
98 Sociology
99 Anthropology

Departmental Order

Accounting
12 Accounting
Art
60 Art
Biology
84 Biology
89 Biology at Lakeside Laboratory
Chemistry
86 Chemistry
Communication and Theatre Arts
50 Communication and Theatre Arts
Communicative Disorders
51 Communicative Disorders
Computer Science
80 Computer Science
Curriculum and Instruction
21 Elementary, Middle Childhood, and Middle School/Junior High
23 Reading and Language Arts
24 Media
30 Safety Education
35 Library Science
Design, Family and Consumer Sciences
31 Design, Family and Consumer Sciences
Earth Science
87 Earth Science
Economics
92 Economics
Education, Interdepartmental
19 Education, Interdepartmental
Educational Administration and Counseling
27 Educational Administration
29 Counseling
Educational Psychology and Foundations
20 Educational Psychology
25 Measurement and Research
26 Social Foundations
English Language and Literature
62 English Language and Literature
63 Linguistics
66 Journalism
Finance
16 Finance
Geography
97 Geography
Health, Physical Education, and Leisure Services, School of
41 Health
42 Physical Education
43 Leisure Services
44 Health, Physical Education, and Leisure Services, Interdepartmental
History
96 History
Humanities
68 Humanities
Humanities and Fine Arts, Interdepartmental
69 Humanities and Fine Arts, Interdepartmental
Interdisciplinary
00 Individual Studies
01 University, Interdisciplinary
Industrial Technology
33 Industrial Technology
Management
15 Management
Marketing
13 Marketing
Mathematics
80 Mathematics
Military Science
08 Military Science
Modern Languages
70 Languages
71 Chinese
72 French
74 German
77 Russian
78 Spanish
79 Portuguese
Music, School of
52 Music
53 Music, Organizations and Ensembles
54 Music, Applied
56 Music Techniques
57 Music Education and Methods
58 Music Theory
59 Music Literature
Philosophy and Religion
64 Religion
65 Philosophy
Physics
88 Physics
Political Science
94 Political Science
Psychology
40 Psychology
Public Policy
95 Public Policy
Science and Science Education
82 Science and Science Education
Social Science
90 Social Science
Social Work
45 Social Work
Sociology and Anthropology
98 Sociology
99 Anthropology
Special Education
22 Special Education
Student Field Experiences
28 Teaching

Course Descriptions

The following is a listing of all of the courses offered by the various departments of the university. The courses are listed in numerical order.

01 University, Interdisciplinary

01:092. Presidential Scholars Seminar — 1-3 hrs.

For presidential scholars only. Credit and topic listed in the Schedule of Classes. May be repeated in a different topic.

XX:19P. Presidential Scholars Research — 1-3 hrs.

For presidential scholars only. Credit and topic to be approved by the Presidential Scholars Board. May be repeated once for a maximum of 6 hours.

08 Military Science Basic Course

08:091. Introduction to the Military — 1 hr.

The role of the military in American society and foreign policy; basic history of the military establishment; introduction to the military rank structure; and leadership models. Discussion, 1 hr./wk.; lab, 1 hr./wk.

08:092. Foundations of Military Organizations — 1 hr.

The basic organization of the military service; emphasis on the total U.S. Army, its mission and capabilities; description of the different Army branches; officer and non-commissioned officer duties and responsibilities. Discussion, 1 hr./wk.; lab, 1 hr./wk.

08:094. Military Leadership Skills — 2 hrs.

Students discuss and learn the principles of leadership and apply them during a Leadership Weekend; introduction to the communication and decision-making process, military writing to include ethics; discuss the Principles of War, Military History and the Soviet Military Threat. Discussion, 2 hrs./wk.; lab, 1 hr./wk.

08:095. Military Survival Skills — 2 hrs.

Basic military survival principles are discussed in class and demonstrated during a Survival Weekend. Concepts taught are: shelter building, water and food gathering, land navigation, first aid, and rescue signaling. Discussion, 2 hrs./wk.; lab, 1 hr./wk., plus 1 field trip.

08:098. Military Science Leadership Practicum — 4-6 hrs.

A six-week summer program at Fort Knox, Kentucky, designed to provide leadership experiences to sophomores. Successful completion will qualify students to enroll into the ROTC Advanced Course. Prerequisite: departmental approval.

Advanced Course

08:116. Small Group Leadership — 3 hrs.

Organizational leadership with emphasis on unit goals and standards, performance motivation, delegation of authority, and training; includes preparation for and conduct of student-led classes in designated subject areas. Discussion 3 hrs./wk.; lab, 1 hr./wk. Prerequisite: departmental approval.

08:117. Principles of Military Operations — 3 hrs.

Fundamentals of military planning and preparation of operations orders for small units; examines organization, functioning, and communications of an infantry company in a tactical environment, includes: defensive, offensive, retrograde, air assault, and fire support operations. Discussion 3 hrs./wk.; lab, 1 hr./wk. Prerequisite: departmental approval.

08:118. Military Management and Law — 3 hrs.

Leadership and management of large organizations with emphasis on effective management of resources and organizational behavior problems; includes military law and the military justice system, requirements of a profession, and necessity of professional ethics. Discussion 3 hrs./wk.; lab, 1 hr./wk. Prerequisite: departmental approval.

08:119. Military Leadership Development — 3 hrs.

A three-hour course designed to comprehensively review professional leadership development principles in order to enhance leadership skills; case studies of applied leadership techniques and lectures addressing problem analysis and the decision making process are the primary methods of instruction; emphasis on final preparation for commissioning and current issues. Discussion 3 hrs./wk.; lab, 1 hr./wk. Prerequisite: departmental approval.

08:189. Readings in Contemporary Military Issues — 1-6 hrs.

Individualized list of selected readings in an area of emphasis. Prerequisite: departmental approval.

08:192. Leadership Practicum — 4-6 hrs.

A six-week summer program at Fort Lewis, Washington, designed to provide leadership development and opportunities for students participating in the Advanced Course. Prerequisite: departmental approval.

12 Accounting

12:030. Principles of Accounting I — 3 hrs.

Introduction to basic language, principles, and procedures of accounting; emphasis on collection of data for external reporting. Prerequisite: sophomore standing. Registration requires a cumulative UNI GPA of 2.2 or better, or the equivalent.

12:031. Principles of Accounting II — 3 hrs.

Emphasis on accounting for the corporate form of business, managerial accounting for decision making, financial statement analysis, and accounting for manufacturing firms. Prerequisite: C- or better in 12:030.

12:129. Intermediate Accounting I — 3 hrs.

Principles and procedures, particularly as applied in accounting for assets. Prerequisite: 12:031.

12:130. Intermediate Accounting II — 3 hrs.

Emphasis on accounting for liabilities and owners' equity, developing statements from incomplete records, statements of changes in financial position, financial analysis and price-level accounting. Prerequisite: 12:129.

12:131(g). Cost Accounting — 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.

12:132(g). Income Tax — 3 hrs.

Federal taxes as applied to individual and business; emphasis on individual return, including pay-as-you-go, social security, declaration, and payments.

12:134(g). Auditing — 3 hrs.

Principles, practices, and procedures used to determine accuracy and reliability of financial records. Prerequisite: 12:130.

12:135(g). Advanced Accounting — 3 hrs.

Accounting for partnerships, special sales procedures, consolidations, and governmental units. Prerequisite: 12:130.

12:136. Computerized Accounting Systems — 3 hrs.

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; 15:080.

12:138(g). Advanced Financial Reporting — 3 hrs.

Contemporary financial reporting to financial statement users external to firm. Includes review of auditing standards, selected APB Opinions 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.

12:148(g). C.P.A. Review — 3 hrs.

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

12:169(g). Internship — Accounting — 2-8 hrs.

Full-time accounting internship for minimum of eight weeks. Prerequisites: consent of department and 2.5 cumulative UNI 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 — 1-3 hrs.

Offered on credit/no credit basis. May be repeated for a maximum of 6 hours.

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 equivalent; and consent of MBA advisor.

12 Accounting/13 Marketing/ 15 Management

12:285. Individual Readings — 1-4 hrs.

Directed readings and reports. May be repeated for a maximum of four hours. Prerequisites: consent of MBA advisor and department head.

12:299. Research — 1-6 hrs.

Prerequisite: consent of MBA advisor and department head.

13 Marketing

13:101. Principles of Marketing — 3 hrs.

A survey course dealing with the role of marketing in society, customer determination and selection, product management, channels of distribution, pricing concepts, and promotional activity within an economic and business environment. Prerequisites: 92:024 or 92:054; junior standing; UNI cumulative GPA of 2.2 or better or the equivalent. (Formerly 13:152.)

13:106. Consumer Behavior — 3 hrs.

Recent findings of psychologists, sociologists, and anthropologists, and marketers in relationship to internal and external influences on buyer behavior and marketing-related decision making. Prerequisite: 13:101. (Formerly 13:140.)

13:108. Marketing Research — 3 hrs.

Procedures used in defining a marketing problem and carrying out the research necessary for its proper solution. Prerequisites: 13:101; 15:080; C- or better in 92:020; and C- or better in 92:070. (Formerly 13:151.)

13:131. Product Management — 3 hrs.

The 'Product' marketing mix element is studied, with focus on new product development and product life cycle. Study of new product development, from idea generation through commercialization, is followed by study of the product life cycle, from product introduction into the marketplace through deletion from a company's product offerings. Prerequisite: 13:101.

13:142. Pricing — 3 hrs.

Price, as one of the major components of marketing, is studied from economic, psychological, and sociological perspectives. Prerequisites: 13:101; 13:106; 92:054.

13:150. Promotion and Advertising — 3 hrs.

Decision making in advertising, consumer promotion, sales promotion, and public relations. Includes market analysis, establishing promotion objectives, budgeting, media/promotion mix selection, communication techniques, and evaluation of effectiveness. Prerequisites: 13:101 and 13:106. (Formerly 13:147.)

13:153. Sales: Selling and Management — 3 hrs.

Study of primary sales management functions from a decision-making perspective by developing field management tools and procedures including recruiting, selection, training, motivating and developing sales personnel, coaching and performance improvement, and time and territory management. Prerequisite: 13:101.

13:161. Distribution — 3 hrs.

The behavioral processes of firms engaged within a marketing channel are examined. Prerequisite: 13:101.

13:166. Retailing — 3 hrs.

The study of retailing and wholesaling fundamentals with the integration of marketing, economics, and behavioral sciences. Prerequisite: 13:101. (Formerly 13:141.)

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

Full-time internship in a marketing-related business for a minimum of eight weeks. A maximum of three semester hours may be applied to Marketing major electives category. Prerequisites: 13:101; 13:106; 13:108; senior standing; UNI cumulative GPA of 2.5 or better; and consent of department head.

13:170. Entrepreneurship — 3 hrs.

Exploration of entrepreneurial qualities, opportunity assessment, strategic planning of new ventures and legal and contemporary environmental issues. This course is not accepted for credit toward the Marketing major, but can be used as an elective. Prerequisites: junior standing; 92:024 or 92:054.

13:172. Venture Opportunity Analysis — 3 hrs.

Examines skills and procedures needed to plan and create a new venture. Emphasis on self-assessment, first venture analysis, and creation of comprehensive business plan. Prerequisites: 13:101; 15:153.

13:173. Venture Strategy — 3 hrs.

Procedures for organizing, financing, and implementing a new venture; managing start up, growth, and organizational management. Prerequisites: 13:101; 13:172.

13:176. Business-to-Business Marketing — 3 hrs.

Study of non-consumer marketing; input-output analysis, buyer company and seller company relationships, organizational behavior, credit policies, financial management and product specification, and industrial marketing practices. Prerequisite: 13:101. (Formerly 13:155.)

13:177. Global Marketing — 3 hrs.

Marketing practices and trends in businesses serving foreign markets. Prerequisite: 13:101. (Formerly 13:157.)

13:178. Services Marketing — 3 hrs.

Differences are explored between the marketing of services and the marketing of physical products. Prerequisite: 13:101.

13:179. Cooperative Education in Marketing — 1-6 hrs.

Offered only on ungraded (credit/no-credit) basis. This course is not accepted for credit toward the Marketing major, but can be used as an elective. Prerequisites: 13:101; and consent of department head.

13:182. Advanced Marketing Research — 3 hrs.

Experimental study with marketing research project management, development and execution utilizing MIS, computer programs, database management, and interaction with actual business problems. Prerequisites: 13:101; 13:108. (Formerly 13:185.)

13:187. Data-Base Marketing — 3 hrs.

Application approach to the building of marketing strategies based on market opportunity analysis; segmentation; forecasting; quantitative evaluation; integration. Prerequisites: 13:101; 13:108. (Formerly 13:175.)

13:191. Marketing Strategy — 3 hrs.

Integration of major marketing functions from a managerial perspective. Emphasis on tactical aspects of marketing mix: product, price, place, and promotion. Prerequisites: 13:101; 13:106; 13:108. (Formerly 13:149.)

13:198. Independent Study — 1-6 hrs.

This course is not accepted for credit toward the Marketing major, but can be used as an elective. Prerequisites: 13:101; and consent of department head.

13:257. Multinational Business — 3 hrs.

Cultural, economic and political developments of major trading areas of the world; their roles as producers and consumers in world markets; problems of organizing, financing, and operating affiliates and subsidiaries doing business abroad; marketing problems of multinational business. Prerequisites: 13:263; and consent of MBA advisor.

13:263. Marketing Management — 3 hrs.

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: 13:191; and consent of MBA advisor.

13:285. Individual Readings — 1-3 hrs.

May be repeated for a maximum of 4 hrs. Prerequisites: consent of department and MBA advisor.

13:297. Practicum — 1-3 hrs.

Prerequisites: consent of department and MBA advisor.

13:299. Research — 1-6 hrs.

Prerequisites: consent of department and MBA advisor.

15 Management

15:010. Introduction to Business — 3 hrs.

Role of business in United States and world. Examines social, legal, and economic variables affecting business operations; includes functions of accounting, finance, management, marketing, and production. No credit for student who has credit in or is concurrently taking 13:101, 15:053, or 16:151.

15:013. 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: consent of department head. Corequisite: employment in approved job.

15:046. Keyboarding — 1 hr.

Beginning course for students with little or no keyboarding instruction. Develops keyboarding skills required for efficient computer operation. Credit/No Credit.

15:047. Keyboarding Applications — 1 hr.

Continued development of keyboarding skills and introduction to formatting skills. Credit/No Credit. Prerequisite: 15:046 or equivalent.

- 15:050. Text Editing/Formatting — 2 hrs.**
Emphasis on techniques, speed, and control in text editing and formatting. Class, 2 periods; lab, 3 periods, arranged. Prerequisite: 15:047 or one semester of high school keyboarding/typing or equivalent.
- 15:056. Shorthand Theory and Methods — 3 hrs.**
Theory and methods for teaching shorthand. Prerequisite: ability to type.
- 15:075. Microcomputer Applications for Business — 3 hrs.**
Application and integration of microcomputer software (word processing/database/spread sheets/data communications/operating systems) and their relationship to business. Prerequisites: 15:080; keyboarding experience required.
- 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.
- 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.
- 15:101. Business Law I — 2 hrs.**
Contracts and sales.
- 15:102. Business Law II — 2 hrs.**
Commercial paper, secured transactions, bankruptcy, partnerships, and corporations.
- 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.
- 15:105(g). Labor and Employment Law — 3 hrs.**
An examination of the law affecting employee/employer relationship. Topics include: National Labor Relations Act, employment discrimination, ERISA, workers compensation, OSHA, international issues. Prerequisite: 15:100 or both 15:101 and 15:102.
- 15:107(g). Employee and Labor Relations — 3 hrs.**
The roles and interactions of labor unions, management and government in establishing and administering contractual agreements over hours, wages, and conditions of employment. Prerequisite: 15:105.
- 15:112. Systems Analysis and Design — 3 hrs.**
An introduction to the systems development life cycle with emphasis on the structured tools and techniques for systems design and presentation of design specifications. Prerequisite: 81:081.
- 15:113. Business Communications I — 3 hrs.**
Basic written communication development through emphasis on writing skills used in business reports, memorandums and letters; will incorporate communication theory. Prerequisite: 62:005.
- 15:114(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: 15:113; junior standing.
- 15:116(g). Curriculum for Training and Development — 3 hrs.**
Emphasis on special factors unique to designing, developing, presenting, and evaluating training programs in organizations. Prerequisites: 15:119; 15:130.
- 15:118(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: 15:119; 15:130.
- 15:119(g). Leadership and Human Resource Development — 3 hrs.**
A study of leadership theories and practices for the purpose of developing human resources within organizations. The course provides an opportunity to develop human relations skills. Prerequisite: junior standing.
- 15:120. Database Management and Theory — 3 hrs.**
A study of database theory and design and the strategic and organizational implications of data management, a comparative analysis of database models, and the use of a fourth generation relational database. Prerequisites: 81:081 and 81:110.
- 15:125. Systems Development and Administration — 3 hrs.**
Continuing study of the systems development life cycle with emphasis on the phases of detail specification, programming, testing, training, conversion and evaluation. Administration and control of the information system function; legal and ethical aspects of information systems. Prerequisite: 15:112; 15:120.

15:127. Decision Systems — 3 hrs.

A study of decision systems and applications. Topics include: decision making, modeling and support; DSS development tools with particular emphasis on integrated fourth generation and expert systems tools; and organizational and social implications of decision systems and expert systems. Prerequisites: 15:112; 15:120; 15:153; 16:151.

15:130(g). Methods of Training and Development — 3 hrs.

Study of training and development as a human resources management function within organizations; includes needs assessment, training objectives, learning principles, new employee orientation, management development, non-management training, program evaluation and international issues. Video-taped micro training is used for student feedback. Prerequisite: junior standing.

15:140. Management Information Systems Policy — 3 hrs.

Examination of key issues in effective management of an organization's information services activity. Emphasis on planning and coordinating information systems development with the organization's strategic plan; awareness of and enhancement of information technology as a competitive tool. Prerequisites: 15:112 and 15:120; or consent of instructor.

15:145. Management Information Systems — 3 hrs.

Role of information systems in supporting organizational goals; design and development of business applications; and the impact of information systems on the organization. Prerequisite: 15:080 or equivalent; may not be taken for credit by MIS majors.

15:153. Organizational Management — 3 hrs.

Study of contemporary organizational concepts and issues and their practical implications for managerial behavior. Prerequisite: junior standing. Registration requires a cumulative UNI GPA of 2.2 or better, or the equivalent.

15:154. 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; 15:080; 92:020; 92:070.

15:161. Manufacturing Management — 3 hrs.

Inventory management, material requirements planning, master scheduling, capacity planning, shop floor control, plant layout, job design, project management. Prerequisites: 15:153; 15:154; 16:151; 92:020; 92:070.

15:163. Management Decision Making — 3 hrs.

The nature of organizational decisions; problem identification and structuring; methods of decision making on the certainty-uncertainty continuum. Prerequisite: 15:165.

15:164. Quality Management — 3 hrs.

Management of quality in manufacturing and service operations. Process control, acceptance sampling, vendor relations, product reliability, equipment maintenance, organizational issues affecting product quality. Prerequisites: 15:153; 15:154; 16:151; 92:020; 92:070.

15:165(g). Organizational Behavior — 3 hrs.

Examination of micro and macro issues found within an organization which would include: people, technology, environment, and structure. Prerequisites: 15:153; 92:070.

15:166(g). Staffing — 3 hrs.

Study of human resource management functions including human resource planning; measurement issues; recruiting and selection with EEO considerations; productivity and performance appraisal; work environment issues; organizational exit; and future trends for Human Resources Management. Prerequisite: 15:153.

15:167(g). Production Policy — 3 hrs.

Discusses emerging issues in developing a manufacturing strategy for competitive success. The roles of technology, quality, and zero inventory, in particular, are studied in the context of globalization of markets and procurement. Prerequisites or co-requisites: 15:161; 15:164.

15:168(g). Compensation Administration — 3 hrs.

Analysis of theories, strategies and models of assessing and rewarding human performance. Examination of the development of sound wage and salary structure, executive compensation, financial incentives and benefits. Prerequisite: 15:153.

15:169(g). Management Internship — 1-3 hrs.

Uncompensated work experience in conjunction with an academic project conducted under faculty guidance. May be repeated up to 6 hours. Offered only on an ungraded (credit/no credit) basis. Prerequisites: consent of department head and 3.0 cumulative grade point average.

15 Management/16 Finance

15:170. Special Problems — 1-3 hrs.

Credit determined at registration. Student will choose one of the following areas:

1. Management
2. Law
3. Business Teaching
4. International Business

May be repeated for a total of 6 hours. Prerequisite: consent of department head.

15:175. Business Policy and Strategy — 3 hrs.

Study of strategy formulation and implementation processes. Through case analysis, focuses on the application of integrative approaches to management. For senior business majors. Prerequisite: completion of rest of "business core".

15:179. Cooperative Education — 1-3 hrs.

Compensated work experience in conjunction with an academic project conducted under faculty guidance. For majors only. May be repeated up to 6 hours. Offered only on ungraded (credit/no credit) basis. (See p.46.) Prerequisite: consent of department head.

15:187. Organizational Design and Development — 3 hrs.

An application of concepts presented in 15:153 and 15:165. A seminar and field-based experience in designing solutions to organizational design and development problems. Prerequisites: 15:163; 15:165 (may be taken concurrently with 15:163).

15:189. Seminar in International Business — 3 hrs.

Problems of organizing, financing, and operating multinational enterprises, and the impact of multinational business upon a world economy. Prerequisites: 13:101; 15:153; and junior standing.

15:190. Topics in Management Information Systems — 1-3 hrs.

Current topics of interest from the field of management information systems. Offerings may include telecommunications, distributed information systems, expert systems, ergonomics, end-user computing. Prerequisite: consent of instructor.

15:191. Curriculum and Methods for Business Education — 3 hrs.

Curriculum development, motivation, specific presentation methods, and evaluation as applied to business programs. Prerequisite: Level II of the Professional Education Sequence.

15:194(g). International Business Systems: Theory and Experience — 3 hrs.

A seminar and field-based experience in comprehending the nature of international business systems through theoretical discussion and interaction with multinational companies. Prerequisite: 15:189 (for undergraduates) or 13:257 (for graduates).

15:207. Curriculum Development in Business and Vocational Education — 3 hrs.

Curriculum development in business education for all levels of education.

15:210. Law, Business and Society — 3 hrs.

Investigates the judicial process, organization of the legal system, and the conceptual development of this system with substantive emphasis in the area of anti-trust, trade regulation, and labor-management. Prerequisite: consent of MBA advisor.

15:215. Measurement and Evaluation — 3 hrs.

Develops skills in the measurement and evaluation of business education subject areas. Includes procedures related to assessment, test construction, testing procedures, and data analysis.

15:221. Business Report Writing — 3 hrs.

Emphasis on effective communication through writing and analyzing business reports. Includes data collection, instruments, analysis, formats, and styles. Prerequisite: 15:114 or consent of instructor.

15:234. Philosophy of Business and Vocational Education — 2 hrs.

Philosophy, principles, and practices of business and vocational education.

15:240. Post-Secondary/Adult Programs — 3 hrs.

Planning, organizing, and administering post-secondary and adult business education; teaching techniques, methods, materials and resources.

15:245. Current Topics in Business Education — 2 hrs.

May be offered in different areas as indicated in the Schedule of Classes. Prerequisite: teaching experience in area selected or consent of instructor.

15:247. Organizational Development and Change — 3 hrs.

A systems approach to organizational development which will investigate the following areas of change: models and interventions of change, quality of work life, organizational structure and design, individual and organizational interfaces, and the role of the change agent. Prerequisite: consent of MBA advisor.

15:249. Management Information Systems Concepts — 3 hrs.

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 advisor.

15:262. Leadership and Organizational Behavior — 3 hrs.

Study of contemporary leadership and its impact upon micro and macro organizational issues. Prerequisites: 15:153 or equivalent and consent of MBA advisor.

15:265. Managerial Statistics — 3 hrs.

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 advisor.

15:266. Quantitative Decision Making — 3 hrs.

Theory and applications of decision analysis and management science methodologies. Emphasis on application to management decision making. Prerequisites: 15:265; and consent of MBA advisor.

15:267. Operations Management — 3 hrs.

Introduction to analysis, design, and management of systems. Prerequisites: 15:265; and consent of MBA advisor.

15:280. Seminar: Business Education Policy — 2 hrs.

May be repeated for a maximum of 6 hours. Prerequisite: 16 hours completed in master's program.

15:285. Individual Readings — 1-3 hrs.

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

15:288. Organization Structure and Design — 3 hrs.

A seminar and field-based experience in designing solutions to organizational problems which utilizes and applies the skills and concepts acquired in 15:262. Prerequisites: 15:262 and consent of MBA advisor.

15:289. Seminar in Business Policy — 3 hrs.

Should be taken in student's last semester of graduate study. Prerequisite: consent of MBA advisor.

15:289.02 Seminar: Administrative Management Policy — 1-3 hrs.

Should be taken in student's last semester of graduate study. Prerequisite: consent of department.

15:290. Improvement of Instruction in Business Education — 2-3 hrs.

15:297. Practicum — 2 hrs.

Prerequisites: consent of MBA advisor and department head.

15:299. Research — 1-6 hrs.

Prerequisites: consent of MBA advisor and department head.

16 Finance

16:140. 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 intended as pre-license course for sales personnel. Prerequisite: junior standing.

16:141. Real Estate Finance — 3 hrs.

Introduction to concepts, techniques, and instruments integral to the financing of Real Estate. Also includes a discussion of financial markets and institutions from which financing can be obtained. Prerequisite: 16:151.

16:142. Real Estate Appraisal and Investment — 3 hrs.

Introduction to the techniques of appraising the value of real estate. Includes a discussion of market approach, cost approach, and income approach. Also includes techniques of analyzing the investment value of real estate. Prerequisite: 16:140.

16:143. Real Estate Law and Brokerage — 3 hrs.

A study of the law affecting real estate value, financing, conveyance, contractual obligations, and brokerage, including agency relationships. Prerequisites: 15:100; 16:140.

16:150(g). 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: 16:151.

16:151. Corporation Finance — 3 hrs.

Study of role of finance function within the corporate enterprise. Prerequisites: 12:031; 92:053; 92:054; 92:070 or equivalent.

16:152(g). Principles of Investments — 3 hrs.

Investment decision making, analysis, and management; includes descriptive analysis of various investment media, techniques of value analysis, and basic topics in portfolio management. Prerequisite: 16:151.

16:154. Financial Information Systems and Analysis — 3 hrs.

Study of financial information systems (FIS) from the perspective of financial decision makers. Topics include: information economics; information value and business performance; and financial analysis. Prerequisite: 16:151.

16:155. 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: 16:151.

16:156. Topics in Financial Management — 3 hrs.

Examines various aspects of financial management through discussions of specific topics. Course, but not specific section, may be repeated. Prerequisite: 16:151; plus the following prerequisite for the particular section.

Sec. 1: Advanced Cases. Prerequisite: 16:155.

Sec. 2: Security Analysis. Prerequisite: 16:152.

Sec. 3: Options/Futures. Prerequisite: 16:152.

Sec. 4: Working Capital. Prerequisite: 16:155.

16:158(g). International Financial Management — 3 hrs.

Study of financial decision making in an international context. Topics include: financing international trade, management of foreign exchange risk, investment analysis, working capital management, and international taxation. A case study approach is used. Prerequisites: 16:151 and junior standing.

16:162. Risk Management and Insurance — 3 hrs.

Fundamentals of risk and of insurance as they apply to financial management. Prerequisite: 16:151.

16:170. Special Problems — 1-3 hrs.

Credit determined at registration. Prerequisite: consent of department head.

16:179. Cooperative Education in Finance — 1-3 hrs.

Compensated work experience in conjunction with an academic project conducted under faculty guidance. Prerequisites: consent of department and 3.0 cumulative grade point average.

16:263. Financial Management — 3 hrs.

Concepts of financial management for the student having the basic background; emphasis on theoretical approach to complex problems (capital acquisition, analysis of capital projects, and financial analysis). Prerequisite: consent of MBA advisor.

16:264. Advanced Financial Management — 3 hrs.

Financial decision making for student with the basic background in business and introductory finance; expands practical ability to deal with complex financial decisions. Prerequisite: consent of MBA advisor.

16:285. Individual Readings — 1-3 hrs.

Directed readings and reports.

Prerequisite: consent of MBA advisor.

16:297. Practicum — 2 hrs.

Prerequisite: consent of MBA advisor.

16:299. Research — 1-6 hrs.

Prerequisite: consent of MBA advisor.

19 Education, Interdepartmental

19:301. Context of Contemporary Education — 3 hrs.

Examinations of issues and problems of concern to educational practitioners from the perspective of educational philosophy, history, and sociology. Prerequisites: 26:220 or 26:234 or 26:235; doctoral status or consent of college.

19:302. Contemporary Instructional Practices — 3 hrs.

Overview of research knowledge base regarding effective instructional practices and their interrelationship in effective schools. Prerequisites: 20:214; doctoral status or consent of college.

19:306. Inquiry and Educational Practices — 3 hrs.

Research methodologies applicable to problem-solving in educational practice. Emphasis on program evaluation, case studies, observation, interviews, surveys, and educational research and development. Prerequisites: 25:205; an upper-division course in statistical methods; doctoral status or consent of college.

19:307. Educational Data Analysis and Interpretation — 3 hrs.

Principles and techniques of computer utilization in educational research data analysis and interpretation. Prerequisites: 25:205; an upper-division course in statistical methods; doctoral status or consent of college.

19:310. Organizational Processes and Communication — 3 hrs.

Organizational development in the school setting. The course will examine organizational and communication models and processes with emphasis on interaction patterns, interpersonal relations and interpersonal influence. Prerequisite: doctoral status or consent of college.

19:311. Educational Leadership and Systems Change — 3 hrs.

Examination of knowledge base for both change and leadership. Emphasis on understanding how change factors and leadership styles interact to influence receptiveness to and acceptance of change. Prerequisite: doctoral status or consent of college.

19:389. Dissertation Seminar — Credit/No Credit.

19:399. Dissertation Research — Credit/No Credit.

20 Educational Psychology

20:017. Field Experience: Exploring Teaching — 1 hr.

Direct and indirect experiences in the ways schools function, roles and responsibilities of teachers, and student behavior. Must be taken on "ungraded" (credit/no credit) basis. Corequisite: 20:030.

20:018. Field Experience: Teacher as Change Agent — 1 hr.

Direct experiences to increase understanding of learning process and apply skills for facilitating the process; may include motivation, classroom management, and teaching strategies. Must be taken on "ungraded" (credit/no credit) basis. Prerequisites: 20:017; 20:030; or equivalents. Corequisite: 20:040.

20:020. Interpersonal Influence Preferences — 2 hrs.

Exploration of values and goals and how these affect relationships; focus on interpersonal skills and helping relations. Designed to enable prospective teachers to work more effectively with students coming from diverse backgrounds. Must be taken on "ungraded" (credit/no credit) basis.

20:030. 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. Prerequisite: sophomore standing.

20:040. Nature and Conditions of Learning — 3 hrs.

Cognitive, affective and psychomotor learning processes; including behavior modification, concept learning, problem solving, creativity, attitude formation and skill learning. Prerequisites: 20:017 and 20:030 or equivalents. Corequisite: 20:018. Prerequisite or corequisite: 25:050.

20:100(g). Child Psychology — 2 hrs.

Application of developmental concepts, principles and theories to contemporary problems of children age 6 to 12 emphasis on possible causes, children's emotional reactions, and ways of coping with these situations in the classroom. Prerequisite: 20:030 or equivalent; junior standing or consent of instructor.

20:109(g). Development of 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.

20:116(g). Psychology of Adolescence — 2 hrs.

Psychological concepts applied to adolescent intellectual, physical, and psychosocial behaviors; designed to improve understanding of, and relationships with, adolescents and their search for identity. 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.

20:130(g). Understanding Students with Learning Problems: Case Studies — 3 hrs.

The evaluation and planning process for the education of students with learning problems through simulated and actual case studies to provide context for discussion and research of issues in the education of students with learning difficulties. Prerequisite: junior standing or consent of instructor.

20 Educational Psychology 21 Elementary and Middle School/Junior High

20:138(g). Psychology of Accident Prevention — 2 hrs.

A foundation for psychological understanding in the field of accident prevention and behavioral problems. Prerequisite: junior standing or consent of instructor.

20:139(g). 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 intensive study of the behavior of man as affected by, and when interacting in, groups. Areas of discussion include prejudice, propaganda, anti-intellectualism, leadership, social perception, group dynamics, game theory, and student protest. Prerequisite: junior standing or consent of instructor.

20:141(g). Topics in Values Education — 2 hrs.

Exploration of theories, techniques, and methods for expressing and examining beliefs, values, and feelings in the classroom. Prerequisite: junior standing or consent of instructor.

20:142(g). Abnormal 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.

20:170(g). Psychology of Learning Disabilities — 3 hrs.

Exploration of learning models, integrated with critical review and use of diagnostic test instruments. Development of interpretative skills and adaptations of teacher methods through case study data and clinical experience. Prerequisite: 25:181.

20:173(g). Behavior Disorders in Children — 3 hrs.

Problems of children who deviate from the norm in behavior and adjustment, including deviations which are organic as well as those which are functional in nature. Observations of clinical procedures.

20:180(g). Community Corps: Tutoring — 2 hrs.

Tutorial experience in multicultural school setting. Collateral seminar for sharing personal insights and discussion of core readings on cultural pluralism. May be repeated once for credit. Prerequisite: junior standing or consent of department head.

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 correlating previous course work and knowledge in the field of educational psychology. For senior psychology majors and minors. Must be taken twice, one semester hour each during the senior year. May be taken by graduate students with consent of department. (May be repeated once for credit.)

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: consent of department.

20:198. Independent Study.

20:210. Motivation in Educational Settings — 3 hrs.

Examination of personal, developmental, and situational factors that influence motivation to learn; and the resolution of motivational problems unique to formal educational settings. Prerequisite: minimum of 6 hours of educational psychology or consent of instructor.

20:214. Foundations of Instructional Psychology — 3 hrs.

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.

20:240. Introduction to School Psychology — 2 hrs.

Nature of the psychological services in the schools; observation of classrooms and activities of various special services personnel. Includes literature of roles and goals of the school psychologist.

20:241. 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.

20:285. Readings.

20:289. Seminar in Education and Psychology — 2 hrs.

Prerequisite: consent of instructor.

20:290. Practicum in Education and Psychology — 2-4 hrs.

Prerequisite: consent of instructor.

20:291. Internship in School Psychology — 2-6 hrs.

Supervised off-campus field experience.

20:299. Research.

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 consent of department.

21 Elementary and Middle School/Junior High

21:120. Elementary Classroom Management — 3 hrs.

This course focuses on the skills needed to plan, organize, manage, implement, 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. Prerequisite: 21:151. Corequisite: 21:192.

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.

21:141(g). Integrated Activities in Elementary School Science and Mathematics — 3 hrs.

Activity based on pedagogical investigation of manipulative materials and activities used in elementary science and mathematics followed by critical analysis using task analysis and research investigations. Prerequisites: 80:134 or equivalent; junior standing or consent of instructor.

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 practice with techniques, materials, and equipment. Interrelations between the various sciences and application of skill subjects will be stressed. Prerequisite: junior standing or consent of instructor.

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.

21 Elementary and Middle School/Junior High 22 Special Education

21:149(g). Child, Family, School and Community Relationships — 3 hrs.
Procedures for developing home-community-school relationships to promote the education of each child in reaching his or her maximum potential. Emphasis on preschool-kindergarten level. Prerequisite: junior standing or consent of instructor.

21:150(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.

21:151(g). Early Childhood Curriculum Development and Organization — 3 hrs.
Current trends in curriculum for preschool children. 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. Prerequisite: junior standing or consent of instructor.

21:161. Teaching Elementary School Science — 3 hrs.
Investigation of current textbook series, trends, teaching materials, and appropriate instructional strategies for contemporary elementary school science programs.

21:164. Teaching Elementary School Social Studies — 3 hrs.
Basic methods and materials for teaching the knowledge, skills, attitudes and values in social studies.

21:192(g). Experience — 2-4 hrs.
Offered in various specialized fields as listed in the Schedule of Classes, but may be taken only twice for credit in the same area.

21:201. Issues and Trends in Curriculum - 3 hrs.
Current ideas influencing the planning and implementation of curriculum. Prerequisite: consent of department.

21:204. Curriculum Construction — 3 hrs.
The role of the classroom teacher in curriculum development projects, focusing on educational change process, 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: 21:142 or 21:152 or consent of department.

21:213. Recent Research in Elementary School Social Studies — 3 hrs.
Various research investigations of examining the content and processes of contemporary curricula. Prerequisite: 21:143 or 21:152 or consent of department.

21:214. Recent Research in Early Childhood Education — 3 hrs.
Review of implications of research to gain techniques for improving instruction and programs for young children. Prerequisite: 21:151 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.

21:222. Evaluating the Early Childhood Curriculum — 3 hrs.
Preparation for conducting and interpreting ongoing curriculum evaluations and meeting evaluation guidelines for funding purposes. Emphasis on evaluation for effective decision making and curriculum problem solving at local level. Prerequisite: 21:221 or equivalent.

21:242. Analysis and Improvement of Science Instruction in the Elementary School — 3 hrs.

Application of developmental psychology to the scope and depth of science instruction; analysis of strengths and weaknesses of alternative science programs including initial and subsequent costs, facility requirements, and implementation difficulties. Prerequisite: 21:142 or 21:152 or consent of department.

21:243. Analysis and Improvement of Social Studies Instruction in the Elementary School — 3 hrs.

Aids teacher in exploring historical and current practices in social studies to create new approaches by using available resources and ideas. Prerequisite: 21:143 or 21:152 or consent of department.

21:254. The Gifted Child — 3 hrs.
Educational needs of the gifted child. Emphasis on characteristics, identification/assessment, special populations, counseling and parenting. Attention to curriculum and program adaptations/evaluation.

21:255. Educational Strategies for the Gifted — 3 hrs.
Current trends in educational programming for the gifted child. Prescription, implementation, and evaluation of differentiated educational strategies used in the comprehensive program. Prerequisite: 21:254 or consent of instructor.

21:257. Coordinating and Directing Gifted Programs — 3 hrs.
Methods and procedures for coordinating and directing school district gifted education programs. Emphasis is on program planning and management, teacher selection/in-service, and program evaluation strategies. Prerequisites: 21:254; 21:255; or consent of instructor.

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.

21:285. Readings in Education — 1-3 hrs.

21:289. Seminar in Education — 2 hrs.
Special topics listed in Schedule of Classes.

21:297. Practicum — 2-3 hrs.

21:299. Research.

21:352. Curriculum Theory and Development — 3 hrs.
Aids the advanced graduate student in viewing, analyzing, and interpreting the curriculum and instruction program of an educational institution and in developing skills for implementing change. Prerequisite: graduate level curriculum course or consent of department.

21:354. Curriculum Implementation and Evaluation — 3 hrs.
Systems for program evaluation and revision and the dynamics of change processes will be explored.

21:389. Seminar in Curriculum and Instruction — 2-4 hrs.
Intensive study and seminar presentations of current issues, trends, procedures, and obstacles to change in curriculum and instructional practice. May be repeated. Prerequisites: 21:352; 21:354 (Curriculum Implementation and Evaluation); 24:240.

21:397. Practicum In Curriculum and Instruction — 2-4 hrs.
Supervised practice in working as a co-facilitator and/or as a facilitator in program evaluation and revision and/or instructional design and improvement in an educational setting. May be repeated to a maximum of 4 hrs. Prerequisites: 21:352 and consent of instructor.

22 Special Education

22:050. Introduction to Exceptional Persons — 3 hrs.
Overview of the field of Special Education including historical perspective, characteristics, programs and legal provisions for education of the handicapped.

22:140(g). Home Intervention Services to Infants and Toddlers with Disabilities and Their Families — 3 hrs.

Screening, assessment, curriculum, and evaluation for handicapped infants/toddlers. Includes strategies for working with adult learners and an overview of service delivery models. Prerequisites: 22:050; 22:174. Corequisite: 22:192.

22:141(g). Preschool Methods for Students with Handicaps: Ages 3 to 6 — 3 hrs.

Screening, assessment, curriculum and evaluation for preschool handicapped youngsters. Includes strategies for working with children in the least restrictive environment. Prerequisites: 22:050; 22:170; 22:174; 22:192 (tutorial). Corequisite: 22:192.

22:142(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 Special Education

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; or consent of instructor. Corequisite: 22:192.

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; or consent of instructor. Corequisite: 22:192.

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: 22:174 or consent of instructor.

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 22:150 and consent of instructor.

22:153(g). Adaptations for Students with Physical and Sensory Impairments — 3 hrs.
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.

22:155(g). Multicategorical Programming for Exceptional Children — 3 hrs.
Introduction to teaching at-risk and mildly handicapped children in multicategorical resource and regular class settings. Focus on service models and trends, program implementations, program arrangements/organization, consultation/collaboration and inservice training. 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.
Individual behavior management, behavioral change strategies, and classroom management for students with special needs. Prerequisites: 22:050; junior standing or consent of instructor. Corequisites: 22:174; 22:192.

22:174(g). Assessment in Teaching of Students with Handicaps — 3 hrs.
The collection and use of academic and behavioral data for teaching handicapped students and the utilization of data in educational planning and curriculum development. Prerequisites: 22:050; junior standing. Corequisites: 22:170; 22:192.

22:183(g). Teaching Students with Moderate Handicaps — 3 hrs.
Instructional methods, materials and assessment for students functioning at a 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 behaviors characterized by positive personal interaction with others and effective team skills. Strategies for collaborating 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. Prerequisites: 22:167 and 22:174; or consent of instructor. 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.

22:240. The Consultation Process in Special Education — 3 hrs.
Provides a systematic model of consulting and problem-solving, including its stages, purposes, principles and tools. Important topics covered are consultant self-management, interaction style and versatility, one-to-one counseling and communication, and one-to-group process facilitation.

22:245. Resource Strategies for the Handicapped — 3 hrs.
Provides a systematic model and method of technical problem-analysis and resolution. Analysis topics covered are data collection, assessment analysis, environmental analysis, behavioral analysis, instructional analysis, as well as organizational and performance analysis. Formulating and implementing instructional strategy and performance development are also major topics of the course.

22:254. Vocational Assessment of the Handicapped — 2 hrs.
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.

22:255. Assessment and Programming for the Preschool Handicapped — 3 hrs.
Administration and use of instruments that measure progress in cognitive, language, motor, social/affective, and self-help developmental domains. Implications for programming and intervening discussed.

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.

22:289. Seminar — 3 hrs.
Prerequisites: 22:182, 22:183, 22:187, or 22:188; 22:192. May be repeated on different topics for a maximum of 9 hours.

22:290. Practicum — 3-6 hrs.
Prerequisites: 22:182, 22:183, 22:187, or 22:188; 22:192. May be repeated for a maximum of 9 hours.

22:299. Research — 2-3 hrs.
May be repeated for a maximum of 6 hours.

22:386. Studies in Special Education — 1-3 hrs.
Individualized exploration of topics germane to the student's projected objectives. Prerequisite: 22:289 or consent of instructor. May be repeated to a maximum of 9 hours.

22:389. Seminar in Special Education — 3 hrs.
Offered on special topics as determined and scheduled by the department. Prerequisite: 22:289 or consent of instructor. May be repeated to a maximum of 6 hours.

22:391. Internship in Special Education — 3 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.

22:398. Research In Special Education — 3 hrs.

Opportunity to pursue topics of interest. Not applicable to dissertation credit. Prerequisite: 25:205 and consent of instructor.

23 Reading and Language Arts

23:044. Children's Literature — 3 hrs.

The evaluation, selection and teaching of literature in the elementary school language arts program.

23:114(g). Language Development in the Elementary School — 3 hrs.

Theories underlying children's literacy acquisition and curriculum. Emphasis on the development of children's oral and written language as communication tools. Prerequisites: 23:115; 23:116.

23:112(g). Current Topics in Elementary Reading — 3 hrs.

Recent methodological developments, new materials, and innovations in organization of elementary reading curriculum. Prerequisites: 23:115; 23:116; junior standing or consent of instructor.

23:113(g). Teaching Expressive Language Arts — 3 hrs.

Explores methods of fostering creative oral and written language expression in elementary schools. Experience with individual children and small groups. Prerequisites: 23:044, 23:115 or 23:134; junior standing or consent of the College of Education Advising Center.

23:114(g). Methods and Materials in the Reading Program — 2 hrs.

Evaluation, adaptation, and creative utilization of various types of reading methods and materials to meet the specific needs of learners. Prerequisites: 23:116 or 23:130.

23:115. Teaching Reading and Language Arts I — 3 hrs.

The first course in methods of teaching language arts in the elementary school. This course focuses on an integrated language arts approach, emergent literacy, oral and written composition, and content area language arts.

23:116. Teaching Reading and Language Arts II — 3 hrs.

The second course in methods of teaching language arts in the elementary school. This course focuses on reading and listening comprehension, word identification, 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 consent of instructor.

23:132(g). Language Arts Across the Curriculum — 3 hrs.

Emphasizes the role of language processes in learning and specific strategies to help elementary and secondary students gain concepts and develop abilities to learn through language processes in all subject areas. Prerequisite: junior standing or 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.

Introductory course in evaluating the reading and language abilities of individual children through instruction within a classroom setting. Includes group and individual evaluation, informal assessment procedures, selection of materials, and instructional strategies to meet the needs of individual learners. Prerequisite: 23:116 or 23:130.

23:144(g). Literature for Elementary Children — 3 hrs.

An advanced course in children's literature. Includes issues and trends in the development of literature-based school programs. Prerequisites: 23:044; junior standing or consent of instructor.

23:147(g). Remedial Reading — 3 hrs.

Selecting, implementing and interpreting a variety of reading and language arts assessment procedures and the development of effective individualized instructional programs. 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 — 1-2 hrs.

Supervised experience teaching in elementary or secondary reading programs. May be repeated for a maximum of 4 hours. Prerequisite: junior standing or consent of instructor.

23:210. Recent Research in Reading — 3 hrs.

A review of current research in reading with implications for school programs. Includes procedures for locating and interpreting research reports. 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 correlate and causal areas including introduction to tests frequently used by specialists. Prerequisite: 23:147.

23:240. Language, Learning and Reading Disability — 3 hrs.

Exploration of factors in reading disability, causes of severe disability, development of remedial programs, and the roles of specialists and parents in remediation. Prerequisites: 23:147; 23:238.

23:250. Issues and Trends in Reading and Language Arts — 3 hrs.

Current issues and trends in reading and language arts instruction; historical and societal influences on school programs. Prerequisite: one course in the teaching of reading.

23:289. Seminar — 2-4 hrs.

Seminar topics to be announced in Schedule of Classes. May be repeated for a maximum of 4 hours. Prerequisite: consent of instructor.

23:290. Practicum — 2-4 hrs.

Supervised experience in teaching and/or supervision of instruction. May be repeated for a maximum of 4 hours. Prerequisite: consent of instructor.

23:299. Research

23:354. Curriculum Development and Evaluation in Reading/Language Arts — 3 hrs.

Current models, methodologies, and decision-making approaches for development and evaluation of K-12 programs. Prerequisite: 21:352.

23:389. Seminar in Reading — 1 hr.

Series of one-hour seminars to accompany doctoral work in statistics, research, and practicum experiences. May be repeated to a maximum of 3 hours. Prerequisite: consent of instructor.

23:397. Practicum in Reading — 2-4 hrs.

A supervised professional experience teaching reading education courses at the university level or participating in reading program supervision and consulting within a school district. May be repeated to a maximum of 4 hours. Prerequisite: consent of instructor.

24 Media

24:020. Educational Media — 2 hrs.

Selection and use of various educational technologies within a systematic educational planning framework. Includes the operation of educational media hardware and software and the design and production of media for educational use. Lab as arranged.

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.

24:031 Educational Media and Classroom Computing — 3 hrs.

Role of educational media and computers in the teaching-learning process. Selection, preparation, utilization, and evaluation of media and computer software for educational use. Lab as arranged.

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. Prerequisites: junior standing and consent of instructor.

24:130(g). Slide Production — 2 hrs.

Fundamentals of color slide photography and the planning, design, presentation of slide programs. Lab as arranged. Prerequisites: 24:147; 24:155 and consent of instructor.

24:131(g). Resources for Communications — 3 hrs.

Selection, utilization, and implementation of multi-media in the preparation and design of messages. Lab as arranged. Prerequisite: junior standing.

24 Media

25 Measurement and Research

24:138(g). Graphics Production — 3 hrs.

Assessment of the generation, manipulation, integration, and final formats of type, artwork, and photography applied to printed and projected media; creative applications of current technology in the development of visuals. Lab as arranged. Prerequisites: 24:031 or 24:131; junior standing and 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. Lab as arranged. Prerequisites: 24:020; 24:031 or 24:131; junior standing and 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 major medium of mass communication. Prerequisites: junior standing and consent of instructor.

24:147(g). Photography — 3 hrs.

Basic principles, skills, and techniques of still photography and their application to communication. Lab as arranged. Prerequisites: junior standing and consent of instructor.

24:148(g). Advanced Photographic Techniques — 2 hrs.

Monochromatic photography including view camera techniques, composition, sensitometry, selection of photographic chemistry and emulsions, filters, specialized printing and finishing techniques. Lab as arranged. Prerequisites: 24:147; junior standing and consent of instructor.

24:150(g). Educational Television Production — 3 hrs.

Theoretical aspects and techniques of educational television production applied in the classroom and studio. Practical experiences in planning and producing educational television programs. Lab as arranged. Prerequisites: 24:031 or 24:131; junior standing and consent of instructor.

24:151(g). Motion Picture Production — 3 hrs.

Production planning, visual continuity, filming, animation, editing, sound recording, titling, and other production techniques. Lab as arranged. Prerequisites: 24:147; 24:155; junior standing and consent of instructor.

24:153(g). Telecommunications in Education — 3 hrs.

Study of the technologies of telecommunications applied to education. Administrative and instructional uses, teaching strategies, critical issues, case studies, and research. Prerequisites: 24:131 and consent of instructor.

24:155(g). Audio Production — 2 hrs.

Fundamentals of audio production including production planning, equipment selection, recording, editing, mixing, dubbing, duplicating and other production techniques. Lab as arranged. Prerequisites: junior standing and consent of instructor.

24:156(g). Multi-Image Production — 2 hrs.

An advanced course in planning, production, and presentation of multi-image programs. Lab as arranged. Prerequisites: 24:130; junior standing and consent of instructor.

24:157(g). Advanced Educational Television Production — 3 hrs.

Examination of techniques and theoretical aspects of professional television production applied to a group project. Lab as arranged. Prerequisites: 24:150; junior standing and consent of instructor.

24:160. Media Projects — 1-4 hrs.

Specialized study in independent media projects. Credit to be determined at time of registration; project, credit and evaluation criteria require advance consent of instructor.

Sec. 1. Audio. Prerequisite: 24:155.

Sec. 2. Computer applications. Prerequisite: 24:020 or 24:031.

Sec. 3. Film. Prerequisite: 24:151.

Sec. 4. Graphics. Prerequisite: 24:138.

Sec. 5. Multi-Media Communications. Prerequisite: 24:131.

Sec. 6. Photography. Prerequisite: 24:147.

Sec. 7. Slide Production. Prerequisite: 24:130.

Sec. 8. Television. Prerequisite: 24:150.

May be repeated for credit to a maximum of 4 hrs. for any section.

24:170(g). The Principles of Publication Design — 3 hrs.

The focus of this course is on evaluation and design of electronically produced materials. Hands-on experiences with desktop publishing are included. Prerequisites: 24:138 and consent of instructor.

24:186. Studies in Media — 1-4 hrs.

24:189. Readings in Media — 1-3 hrs.

24:205. Instructional Computing Design — 3 hrs.

Evaluation and design of computer-based instructional materials. Hands-on experiences with the design of computer-based lessons. Prerequisite: 24:240.

24:230. Communication Theory in Media — 3 hrs.

Contemporary theory of human and mass communication, learning, perception, and propaganda as they apply to message design utilizing communication media.

24:232. Selection and Integration of Materials — 1-3 hrs.

Evaluation of the instructional setting along with the procedures for selection and integration of 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.

24:240. Instructional Development — 3 hrs.

Analysis and synthesis for structuring learning environments including learner, task, environmental, and instructional strategy analysis.

24:253. Interactive Video Design — 3 hrs.

The focus of this course is on evaluation and design of interactive videodisc instructional materials. Hands-on experiences with the development of this type of instruction are included. Prerequisites: 24:240 and consent of instructor.

24:260. Advanced Media Projects — 1-4 hrs.

Advanced study in independent media projects. Credit to be determined at time of registration; project, credit, and evaluation criteria require advance consent of instructor.

Sec. 1. Audio. Prerequisite: 24:155.

Sec. 2. Computer Applications. Prerequisite: 24:205.

Sec. 3. Film. Prerequisite: 24:151.

Sec. 4. Graphics. Prerequisite: 24:138.

Sec. 5. Multi-Media Communications. Prerequisite: 24:131.

Sec. 6. Photography. Prerequisite: 24:147.

Sec. 7. Slide Production. Prerequisite: 24:130.

Sec. 8. Television. Prerequisite: 24:150.

May be repeated for credit to a maximum of 4 hrs. for any section.

24:285. Readings in Media — 1-3 hrs.

24:286. Studies in Media — 1-4 hrs.

24:289. Seminar — 2 hrs.

24:297. Practicum — 2-3 hrs.

24:299. Research.

25 Measurement and Research

25:050. Classroom Evaluation Instruments — 2 hrs.

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 20:040. Prerequisites: 20:017; 20:030.

25:180(g). Statistical Methods in Education and Psychology — 3 hrs.

Introduction to statistical methods. Includes graphing techniques, measures of central tendency and variability, correlation, t-tests, one way ANOVA, and chi-square. 2 hr. lab arr. Prerequisite: junior standing or consent of instructor.

25:181(g). Group Evaluation Techniques — 3 hrs.

Measurement and evaluation in the instructional programs of elementary and secondary schools. Utilization of standardized group instruments in measuring aptitude, intelligence, achievement, interest, and personality. Prerequisite: junior standing or consent of instructor.

25:189(g). Seminar in Education — 2-3 hrs.

25:205. Educational Research — 3 hrs.

Evaluation of educational research concepts, including purposes, hypotheses, principles of research design, data collection, and interpretation of results.

25:270. Educational Program Evaluation — 3 hrs.

Examination of models, data-gathering methods, analysis, and report preparation for educational program evaluation; attention to application of evaluation research to specific school and non-school settings.

25:280. Theory and Construction of Tests — 2 hrs.

An advanced course in the theory of test construction and practical application of the theory to actual construction and validation processes. Prerequisite: 25:180 and 25:181.

25:281. Topics in Statistical Analysis — 3 hrs.

Application of statistical principles to research in education and psychology. Topics selected from: correlational analysis; analysis of variance; sampling in education research; chi-square, t, and F distributions. Emphasis on statistical inference. Prerequisite: 25:180 or the equivalent.

25:282. Individual Intellectual Assessment — 3 hrs.

Standardization, cross-validation, administration, scoring, and elementary interpretation of: Stanford-Binet Scale, Wechsler Preschool and Primary Scale, Wechsler Intelligence Scale for Children, Wechsler Adult Intelligence Scale.

25:283. Psychodiagnostics — 3 hrs.

Assessment of quantitative and qualitative potentialities of basic IQ tests (Stanford-Binet and Wechsler instruments), and use of projective instruments (House-Tree-Person test, TAT, CAT, Rorschach) to complement findings from conventional cognitive measures.

25:284. Advanced Psychodiagnostics — 3 hrs.

Use of test studies to understand behavioral styles of individual students; includes interpreting tests and observational data in discussion with parents and school and community personnel.

25:285. Readings.

25:289. Seminar in Evaluation and Research.

25:299. Research.

25:300. Descriptive Educational Research — 3 hrs.

An examination of theoretical and practical aspects of survey research including sampling, instrumental design and administration, and the application of computer techniques to the analysis of survey information. Prerequisites: 25:180, 25:205, and 25:281, or consent of department.

25:301. Advanced Experimental Research in Education — 3 hrs.

Relationships between scientific research, theory construction and ethical principles; true-experimental and quasi-experimental designs; univariate, factorial and multivariate analyses with appropriate computer applications; critical review of experimental literature and preparation of research manuscripts. Prerequisites: 25:180, 25:205, and 25:281, or consent of department.

25:302. Qualitative Methods in Educational Research — 3 hrs.

The study of the techniques of direct observation and analysis of human behavior in ongoing, naturalistic settings. The focus will be on the problems associated with the two main approaches used in qualitative research — participant observation and in-depth interviewing. Prerequisites: 25:180, 25:205, and 25:281, or consent of department.

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). Reform Movements in Education — 3 hrs.

Criticism of American schooling developed since the 1950's; social implications of various movements to reform the schools, establish alternatives to schools, and to deschool society. Prerequisite: junior standing or consent of instructor.

26:138(g). Comparative Education — 3 hrs.

A panoramic view of the educational systems of various nations of the world compared with the education of the United States of America. Prerequisite: junior standing or consent of instructor.

26:139(g). Asian Education Systems: Soviet Comparisons — 3 hrs.

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.

26:143(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. Prerequisites: junior standing and consent of instructor.

26:189(g). Seminar in Social Foundations — 2-3 hrs.

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.

26:235. History of American Education — 3 hrs.

The study of education as a social institution with emphasis on the historical antecedents which have shaped present educational practice in the United States.

26:299. Research.

26:334. Advanced Philosophy of Education — 3 hrs.

Philosophical analysis of the logic of education. Development of educational policy and program positions based upon the results of philosophical thought. Prerequisite: 26:234 or consent of department.

27 Educational Administration

27:198. Independent Study.

27:201. Introduction to Educational Administration — 3 hrs.

Analysis of societal influences upon educational institutions; the role and function of school administrators.

27:203. Leadership in Education — 2 hrs.

Analysis of roles, and form and manner in which these roles are effectively performed. Prerequisite: 27:201.

27:204. School and Community Relations — 3 hrs.

Factors and conditions within community and schools which affect relationships among the many publics.

27:215. Supervision and Evaluation of Instruction — 3 hrs.

Developing knowledge of basic problems and procedures in organizing elementary/middle/secondary school supervision evaluator programs. Special emphasis is placed on identifying and analyzing effective teaching and performance behaviors.

27:218. Organization and Administration of Post-Secondary Education — 3 hrs.

An introduction to the organization and administration of institutions that conduct post-secondary education including two- and four-year colleges and universities. Course will emphasize organizational theory and behavior and will use case studies to illuminate the multifaceted mission and operation of these organizations.

27:220. Administration of the Elementary School Curriculum — 3 hrs.

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.

27:227. Administration of the Secondary School Curriculum — 3 hrs.

Developing knowledge and skills for the high school and middle-level school principal in curriculum leadership and development.

27:228. Administration of the Secondary School — 3 hrs.

Leadership and management roles of high school and middle-level school principals. Prerequisite: one year of teaching experience and 27:201.

27:230. School Laws — 3 hrs.

Legal structure for education; powers and duties of boards of education; rights and responsibilities of school personnel; rights of parents and students; and related topics. Emphasis on judicial decisions and common law with practical application for school personnel.

27:235. Technological Applications in Educational Administration — 2 hrs.

Development of computer skills associated with word processing, data bases and electronic spreadsheets. Also, an exploration of current technology associated with education. Emphasis will be placed on the development of a technology plan for educational implementation.

27 Educational Administration 28 Student Teaching

27:250. Teaching in College — 3 hrs.

Examines issues and problems in college teaching including: roles of the college teacher, factors affecting teaching and learning environment, learning theory, course planning, and teaching strategies.

27:252. Current Issues in Higher Education — 3 hrs.

Organized around the major issues confronting community colleges, senior colleges, and universities in contemporary society.

27:256. The Two Year College — 3 hrs.

The purpose of this course is to provide the learner with an understanding of the mission, governance, and operation, and student and faculty issues unique to the two-year college in the United States, with particular attention to Iowa. Graduate standing.

27:260. History and Philosophy of Higher Education — 3 hrs.

Overview of the historical development, issues, philosophies, and cultural backgrounds of higher education in America.

27:262. Administration of Continuing and Lifelong Education — 3 hrs.

Survey of the history, background and impact of continuing and lifelong education in the United States. Explores the demographic, economic and social trends influencing continuing and lifelong education, the programs and structures which facilitate lifelong education, and the implications of continuing and lifelong education for administrators and faculty in higher education. Focus will be on policy, program development, and management. Significant emerging issues in these areas will be considered.

27:264. Student Services in Higher Education — 3 hrs.

An introduction to the field of college/university student services with applications of theory to practice.

27:270. College Students and Their Culture — 3 hrs.

Examines the issues, problems and effects of the college/university experience on undergraduate students and, conversely, the student's impact on the college/university.

27:285. Readings in Educational Administration.

27:290. Practicum in Educational Administration — 2-4 hrs.

Elementary and Secondary sections credit/no credit only.

27:291. Internship — 3-6 hrs.

Internship will be preceded by at least one practicum experience and is designed to provide the student intern with a practical professional work experience. The work of the intern will be directed by practicing public school professionals, college/university student services professionals, or by related agency professionals. The internship experience will also be supervised by a faculty member in the Department of Educational Administration and Counseling. Elementary and Secondary sections credit/no credit only. Prerequisites: 27:290; consent of instructor.

27:299. Research.

27:310. School Personnel Administration — 3 hrs.

Teacher selection and placement, promotion, tenure, and retirement; administration of pupil personnel facilitating services. Prerequisite: 27:201. (Formerly 27:210.)

27:325. Organization, Governance, and Administration of Public Education — 3 hrs.

Analysis of theories of organization and management models; examination of governance, function, and administration of local, intermediate, state, and federal education agencies. Prerequisite: one course in management or administration in education or consent of department.

27:340. School Finance — 3 hrs.

Financial support for education; emphasis on Iowa. Prerequisite: 27:201. (Formerly 27:240.)

27:341. School Buildings and Sites — 2 hrs.

Problems of school building planning, operation, and maintenance. Prerequisite: 27:201. (Formerly 27:241.)

27:342. Decision Making — 2 hrs.

Environmental and personnel factors influencing decision making; specific emphasis on the process, competencies and consequences. Prerequisite: 27:201. (Formerly 27:242.)

27:343. School Business Management — 3 hrs.

Business administration and budgeting; emphasis on Iowa. Prerequisite: 27:340. (Formerly 27:243.)

27:354. Collective Bargaining in the Public Sector — 3 hrs.

Basic principles of collective bargaining as they apply to educational administration. (Formerly 27:254.)

27:363. Administrative and Organizational Theory in Education — 3 hrs.

Examines contemporary and classical thought relating to organizational dynamics and administrative leadership and decision-making in both the public and private sectors. Limited to post-master's students only.

27:385. Readings in Educational Administration — 1-3 hrs.

Individualized list of selected readings in an area of emphasis, as determined by instructor and student.

27:388. Internship in Educational Administration — 1-6 hrs.

Required for certification. An intensive experience designed to integrate administration skills in the work setting. Credit/No Credit only.

27:389. Seminar in Educational Administration — 2-3 hrs.

Offered on special topics as determined and scheduled by the department. May be repeated for maximum of 6 hours. Limited to post-master's students only.

27:397. Practicum in Educational Administration — 2-4 hrs.

May be repeated. Limited to post-master's students only. Credit/No Credit only. Prerequisite: consent of advisor.

27:398. Research in Educational Administration — 1-3 hrs.

Research on selected topics of special interest. Not applicable to dissertation credit.

28 Student Teaching

28:070. Human Relations: Awareness and Application — 3 hrs.

Development of awareness of various societal subgroups, recognizing and dealing with dehumanizing biases, 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 is stressed. Corequisite: Student teaching.

28:132. Early Childhood Teaching — 12 hrs.

Prerequisite: Completion of Levels I and II of the Professional Education Requirements. 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.

28:134. Elementary Teaching — 12 hrs.

Prerequisite: Completion of Levels I and II of the Professional Education Requirements. 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.

28:135. Special Education Teaching — 12 hrs.

Prerequisite: Completion of Levels I and II of the Professional Education Requirements. 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.

28:137. Middle School/Junior High Teaching — 12 hrs.

Prerequisite: Completion of Levels I and II of the Professional Education Requirements. 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.

28:138. Secondary School Teaching — 12 hrs.

Prerequisite: Completion of Levels I and II of the Professional Education Requirements. 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.

28:139. Vocational/Technical Teaching — 12 hrs.

Prerequisite: Completion of Levels I and II of the Professional Education Requirements. 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.

28:140. Special Area Teaching: Art, Library Science, Music, Physical Education, and Speech Pathology — 12 hrs.

Prerequisite: Completion of Levels I and II of the Professional Education Requirements. 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.

28:150. Laboratory Practice — Elementary(*)**28:151. Laboratory Practice — Secondary(*)**

(*)For experienced teachers (*elementary or secondary, as appropriate) who have not fulfilled the student teaching requirements for certification and to provide an in-depth experience. Includes practice in modern teaching procedures, construction and use of classroom instructional materials, analysis of the teaching-learning process, meeting needs of exceptional children, classroom supervision, and school-parent relations. Special seminar arranged. Departmental recommendation and consent required.

28:170(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.

28:191(g). Supervision of Student Teaching — 3 hrs.

Designed primarily for those presently or potentially involved in the supervision of student teachers. Covers the selection and preparation of student teachers; readiness for student teaching; principles of supervision, including the identification and analysis of good classroom procedures and desirable experiences for the student teacher in the total school program; professional responsibilities of the student teacher in the school and community; evaluation of student teachers, and the supervising teacher's role in the selection of teachers for the profession. It also covers the selection and preparation of student teaching centers, qualifications of supervising teachers and the role of the coordinator of student teaching.

28:250. Advanced Laboratory Practice — 2-12 hrs.

Student may concentrate on any aspect of the school program, such as curriculum, methods, evaluation, remedial instruction, guidance, supervision, administration, public school relations, educational media and audio-visual aids, and extra-class activities. Consent of the Director of Teacher Education required.

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.

An introduction to counseling in school (K-12), mental health and community agency settings. Emphasis on professional roles, current trends, and legal/ethical issues. 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). Alternative Family Systems — 3 hrs.

Characteristics and dynamics of alternative family systems will be explored, with special emphasis in helping strategies related to the issues in alternative family systems. Prerequisite: junior standing.

29:116(g). Gender Role Issues — 3 hrs.

This course will examine the impact of gender on relationships and social issues. Counseling strategies for gender related problems will be explored. Prerequisite: junior standing.

29:124(g). Applied Group Dynamics — 2 hrs.

Involvement in laboratory learning emphasizing the concepts and skills necessary for effective group membership. Course will cover group development theory, conflict management, and conditions for personal and interpersonal learning in group settings. 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.

29:198. Independent Study.**29:205. Counseling Processes — 3 hrs.**

Emphasis on development of advanced-level counseling skills, complex processes involved in helping relationships, and the importance of the helper's personal integration. Deals with population-specific interviewing including intakes, decision-making, goal setting, implementation of strategies and termination. Extensive practice and lab. Prerequisites: 29:105; 29:124. Corequisite: 29:227.

29:207. Counseling Processes with Children — 3 hrs.

This course will emphasize the specialized counseling and guidance approaches applicable to the elementary school child. The course will place prime emphasis on individual counseling of the elementary school child through the use of play media and verbal techniques. The course involves classroom lectures, assigned readings, classroom discussion and actual counseling experience under supervision. Prerequisite: 29:105 or 29:205.

29:210. Management Systems in Guidance — 3 hrs.

Focus of this course is on necessary considerations in the management or organization of a K-12 comprehensive, sequential, developmental guidance program. Registration limited to counseling majors. Prerequisite: one year of teaching experience and consent of department.

29:220. Group Process — 3 hrs.

Emphasis on direct participation in groups to develop skills in guidance and counseling. Prerequisite: 29:124.

29:226. Consultation Skills — 3 hrs.

Stresses principles, procedures, and process of consultation with emphasis on developing consultation skills. Prerequisite: 29:205 or 29:254.

29:227. Counseling Theory — 2 hrs.

Theoretical approaches to counseling. Function and present status of counseling theory. A study of each of the predominant theories. Prerequisite: 29:105.

29:228. Assessment Techniques in Counseling — 3 hrs.

Assessment and appraisal procedures of individuals and groups. The primary focus will be on the administration and interpretation of standardized and non-standardized tests, inventories, observations, and case data for use in counseling. Registration limited to counseling majors or consent of instructor.

29:235. Supervision of Counseling Services — 2 hrs.

Instruction in the methods and techniques of counselor supervision with major emphasis in supervisory experiences in a regular school situation.

29:240. Intervention Strategies — 3 hrs.

Integration of counseling theory and counseling process in the design implementation of strategies for changing designed behaviors. Prerequisites: 29:205 or 29:254.

29:250(g). Family Counseling — 3 hrs.

A 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 consent of instructor.

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; 29:250; 29:205 or 29:227 or 29:254 or equivalent.

29 Counseling/30 Safety Education 31 Design, Family and Consumer Services

29:254. Counseling and Guidance Techniques with Children and Adolescents — 3 hrs.

Specific instruction on conceptualization of childhood and adolescent problems with emphasis on appropriate interventions. Focus will be directed towards developmental as well as remedial counseling approaches with accompanying skill development. Prerequisites: 29:105 and 29:124 or consent of instructor.

29:285. Readings in Counseling — 1-3 hrs.

29:289. Seminar in Counseling — 1-3 hrs.

Special topics as indicated in the Schedule of Classes.

29:290. Practicum in Counseling — 3 hrs.

Prerequisites: 29:103; 29:124; 29:227; 29:250 plus: For School Counseling—29:254, and 20:142 or 31:252 or 40:125; or For Counseling—Community Agency/Mental Health—29:205, and 20:142 or 20:230 or 31:252 or 40:142.

29:291. Internship — 3-6 hrs.

Prerequisites: 29:290; consent of instructor.

29:299. Research.

29:335. Counselor Supervision — 3 hrs.

Components include building counseling programs through effective utilization of staff, team building, developing leadership skills, and program evaluation. Prerequisite: 29:235.

29:385. Readings in Counseling — 1-3 hrs.

Individualized list of selected readings in an area of emphasis, as determined by instructor and student.

29:389. Seminar in Counseling — 1-3 hrs.

Offered on special topics as determined and scheduled by the department.

29:391. Internship in Counseling — 1-6 hrs.

Required for accreditation. An intensive experience designed to integrate counseling skills in the work setting.

29:397. Practicum in Counseling — 3 hrs.

An advanced supervised experience to further develop counseling skills. Prerequisite: consent of instructor.

29:398. Research in Counseling — 1-3 hrs.

Library or data-based research on selected topics of special interest. Not applicable to dissertation credit.

30 Safety Education

30:030. Principles of Safety Education — 4 hrs.

Methods and materials of teaching safety education in elementary and secondary schools.

30:130(g). Driver and Traffic Safety I — 3 hrs.

Classroom and practice driving units; safety education as a social problem; development of safety skills, habits, attitudes, and ideals; accident causes; study of research. Prerequisite: junior standing or consent of instructor.

30:131(g). Driver and Traffic Safety 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. Prerequisites: 30:130; 30:131.

30:137(g). Teaching Motorcycle and Recreational Vehicle Safety — 3 hrs.

Fundamental knowledge and skill development to assist participants in becoming safe vehicle operators, and equipping them to develop and teach such safety education programs in their respective schools. Prerequisite: junior standing or consent of instructor.

30:140(g). Traffic Law Enforcement — 3 hrs.

Designed to acquaint safety and driver education teachers with the purposes of traffic law enforcement and traffic engineering. Prerequisite: junior standing or consent of instructor.

30:192(g). Experience in Safety Education — 2-4 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 Design, Family and Consumer Sciences

31:010. Clothing Selection — 2 hrs.

Implications of physical and social needs of individuals for clothing throughout the life cycle. Clothing selection based on analysis of the body form with consideration of the elements of design.

31:015. Apparel Structure — 3 hrs.

Application and analysis of principles of clothing construction.

31:018. Advanced Apparel Structure — 3 hrs.

Advanced techniques utilized in the structure of apparel. Application of problem-solving processes to anthropometric and kinesiological considerations. Prerequisite: 31:015 or consent of instructor.

31:020. Introduction to Fashion Merchandising — 3 hrs.

Introduction to the principles and procedures in the merchandising of fashion. Overview of the structure of the apparel industry and the organization of outlets. Survey of careers within the fashion industry.

31:030. Basic Nutrition — 2 hrs.

No credit for 31:030 if credit previously earned in 31:032 or 31:037. Study of nutrition in relation to growth development, and maintenance of the body.

31:032. Fundamentals of Nutrition — 2-3 hrs.

No credit if previously earned credit in 31:030 or 31:037. The needs and functions of food nutrients for growth and maintenance of health through the life cycle. Prerequisite: 42:050 or 84:030 or 86:044 or equivalent or consent of instructor.

31:035. Principles of Food Science — 3 hrs.

The chemical composition and physical structure of food and the scientific principles underlying the preparation, processing, and preservation of standard food products. Prerequisite: 86:010 or 86:044 or 86:061 or consent of instructor. Can be taken in lieu of 31:039.

31:037. Principles of Nutrition — 3 hrs.

Study of the nutrients basic to the science of nutrition, their structure, function in the body, nutrient composition and selection of food to meet nutrient needs; application to dietary patterns of selected individuals and ethnic groups. Prerequisites: 86:048 or 86:063 or equivalent or consent of instructor.

31:038. Nutrition, Food Economics and 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 31:032 or 31:037; 31:035 or consent of instructor.

31:040. Nutrition and Dental Health — 4 hrs.

The need for and functions of nutrients in the body. Emphasis on the effect of foods and nutrients in oral health and disease. Limited to students in dental hygiene program. Prerequisite: 86:063 or equivalent.

31:051. Personal Relationships — 2 hrs.

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.

31:053. Human Identity and Relationships — 3 hrs.

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.

31:054. Decision-making in Family Systems — 3 hrs.

An integrative approach to the human environment relative to management, clothing and housing. The analysis of the acquisition, use and allocation of resources, decision-making and design regarding aesthetic, behavioral, and economic issues. No credit for 31:054 if credit previously earned in 31:010, 31:065, or 31:070.

31:055. Human Growth and Development — 3 hrs.

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.

31:057. Human Relationships and Sexuality — 3 hrs.

Male and female identity; establishment of meaningful interpersonal relationships, and definition and role of human sexuality in human relationships.

31:061. Introduction to Design and Human Environment — 3 hrs.

Introduction to design elements, principles, and applications; develops individual perception of design processes within an interior design context.

31:062. Household Equipment — 3 hrs.

Selection, use and care of equipment used in the home. Application of basic physical science principles.

31:063. Drafting I — 3 hrs.

Introductory drafting course; emphasis on drawing as a visual communications medium. Develops basic technical drafting skills as a graphic language for beginning designers. Prerequisite or corequisite: 31:061.

31:064. Drafting II — 3 hrs.

Drawing as a practical design language; development of simple, fast, and accurate method of drawing; and humanize drawing as a design skill. Includes lab experiences. Prerequisite: 31:063.

31:065. Housing and Home Furnishings — 3 hrs.

Practical, social, and aesthetic aspects of 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 through the life cycle; application of management processes toward goal achievement. Prerequisite: at least sophomore standing.

31:075. Computer Applications for Interior Design — 3 hrs.

An introduction to computer-aided drafting as it applies to the field of interior design. Prerequisite or corequisite: 31:064 and consent of instructor.

31:106. Professional Practice of Dietetics — 1 hr.

Laws, regulations, standards in dietetic practice; professional ethics and responsibilities; functioning in diverse cultural/socio-economic settings, and fundamentals of political and legislative processes as they affect the profession and practice of design, family and consumer sciences and dietetics. Prerequisite: senior standing in dietetics.

31:107. Professional Practice of Nutrition and Food Science — 1 hr.

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; prerequisite or corequisite: 31:115.

31:110. Textiles — 3 hrs.

Effect of fiber content, construction, and finish on the serviceability and cost of fabrics. Identification tests.

31:111(g). Apparel Design: Flat Pattern — 3 hrs.

Exploration of the total design concept as it applies to deriving two-dimensional patterns from three-dimensional forms. Prerequisites: 31:010; 31:015; junior standing; or consent of instructor.

31:112(g). Analysis of Tailoring Processes — 3 hrs.

Analysis of the application of traditional and contemporary tailoring processes in the construction of apparel. Prerequisite: 31:015; junior standing; or consent of instructor.

31:113. Decorative Textiles — 3 hrs.

Survey and analysis of textile printing, weaving, dyeing, and other decorative processes from past to present. Emphasis is on the relationship between traditional processes and current practices. Prerequisite: 31:110.

31:114(g). Socio-Psychological Aspects of Clothing and Textiles — 3 hrs.

A study of clothing and textiles in relation to culture, society, and the individual. Survey and application of selected theories. Recommended to precede this course: 40:008 or 98:058 or equivalent. Prerequisites: 31:010 and junior standing.

31:115(g). Fashion Buying and Merchandising — 3 hrs.

Application of merchandising concepts and procedures for the planning and buying of fashion goods and apparel in retail organizations. Impact of demographic and social trends on the fashion retailing industry and the concurrent relationship to the merchandising function. Prerequisites: 31:020 and junior standing.

31:116. History of Costume — 3 hrs.

Costume in the western world from ancient times to the present.

31:117(g). Apparel Design: Draping — 3 hrs.

Exploration of the total design concept as it applies to designing with fabric on three-dimensional forms. Prerequisites: 31:010; 31:015; junior standing; or consent of instructor.

31:118. Problems in Clothing and Textiles — 1-4 hrs.

(1) Textiles, (2) Clothing.

31:119. Trends in the Apparel and Textile Industries — 3 hrs.

Studies of contemporary issues in the apparel and textile industries. 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.

31:121. Fashion Promotion — 3 hrs.

Promotion and nonpersonal selling activities within the fashion marketing process. Includes strategies, media selection and use, planning and budgetary processes, publicity, display, special events, and fashion shows. Prerequisites: 31:010; 31:020.

31:124. Apparel Evaluation — 3 hrs.

Methods and techniques used in evaluating the quality of ready-to-wear apparel. Prerequisites: 31:015; 31:110.

31:125. Design II — 4 hrs.

Human determinates as introduction to the organization of human perception of physical and psychological needs in personal space. Prerequisite: 31:066.

31:126. Design III — 4 hrs.

Human determinates of design of spaces which solve specific human problems; analysis of the complexities of social functions. Corequisite: 31:125.

31:127. Design IV — 4 hrs.

Development of systematic approach to solving complex human needs in the public zone. Analysis of user needs in the public environment. Design studies where users and their environment require equal functional priority. Prerequisite: 31:126.

31:128. Design V — 4 hrs.

The synthesis of complex commercial design problems into solutions which meet the operational, functional, qualitative, quantitative, as well as technical requirements of projects. Prerequisite: 31:127.

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.

31:131. Community Nutrition — 2 hrs.

The planning, funding, implementation, and evaluation of community nutrition programs; the dietitian's role; and the formulation of public nutrition policy for community programs. Students will make observation in a community nutrition program in partial fulfillment of course requirements. Prerequisites: 31:037 and junior standing.

31 Design, Family and Consumer Services

31:137(g). Advanced Nutrition — 3 hrs.

The physiochemical role of nutrients in metabolic pathways; their integration and regulation; basis for determining nutrient requirements and dietary standards. Prerequisites: 31:037, 84:032, 86:123, or consent of instructor; junior standing.

31:139(g). Seminar: Nutrition and Food Science — 1 hr.

Review of scientific literature on specific topics in food science and/or nutrition; oral and written reports presented. Prerequisite: junior standing or consent of instructor.

31:140(g). Food Product Development and Sensory Research Laboratory — 2 hrs.

Laboratory for 31:144 Food Product Development and Sensory Research. Prerequisites: 13:152; 31:035; 31:146; 84:033 or consent of instructor; and junior standing. Corequisite: 31:144.

31:141. Undergraduate Research in Nutrition and Food Science — 1-2 hrs. Study of research methodology, data analysis and evaluation, in nutrition, research activities under direct supervision of Design, Family and Consumer Sciences faculty. Prerequisites: 98:080 and consent of instructor.

31:142(g). Food Research Techniques — 3 hrs.

Functions of ingredients in various food systems, factors affecting quality of food products, individual experimentation and its relation to research literature, and writing scientific reports. Prerequisites: 31:035; 31:146 or consent of instructor; junior standing.

31:143(g). Origin of Food and Foodways — 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). Food Product Development and Sensory Research — 2 hrs.

Fundamentals of art, science and technology applied to research development and marketing of new food product concepts. Laws, regulation, additives, labeling and packaging. Principles and methodology of sensory evaluation of food; application of methods in food product development. Prerequisite: junior standing.

31:145(g). Food Service Systems Management and Administration — 4 hrs.

Introduction to food service systems, quantity food procurement and production, food service control methods, organization and management, equipment design and facility layout. Prerequisites: 15:153; 31:038; junior standing.

31:146(g). Advanced Food Science — 3 hrs.

The study of chemical and physical properties of carbohydrates, fats, and proteins as functional ingredients in various food systems with methods of analysis, evaluation and application used in the food industry. Prerequisites: 31:037; 86:063 or 86:120; or consent of instructor; junior standing.

31:148. Problems in Nutrition and Food Science — 1-4 hrs.

(1) Food Science; (2) Nutrition.

31:149(g). Nutrition in Disease — 4 hrs.

The role of nutrition in the prevention and treatment of disease. The pathology of and biological basis for nutritional, medical, and drug therapy of selected diseases. Counseling and interviewing techniques, teaching strategies and their application in practice. Prerequisites: 31:130 or 31:137; 84:032; 86:154; junior standing.

31:150(g). Child and the Home — 3 hrs.

The infant through pre-school age; experience with children through a play-school situation. Prerequisites: 20:030 or 31:055 or 40:120; junior standing.

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 40:120; junior standing.

31:155(g). Parenting — 3 hrs.

Roles and relationships involved in parenting; practical aspects of child rearing based on developmental stages, emphasizing the development of self with love, trust, identity, autonomy, and responsibility. Prerequisites: 20:030 or 31:055 or 40:120; 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 pre-professional experience. For Family Services majors only. Prerequisites or corequisites: 31:153 and consent of instructor.

31:157(g). Family Life Education — 3 hrs.

Exploration of issues, materials, and methods in family life education; development of concepts and curricula for various age and special needs groups; qualifications of the family life educator. Prerequisites: 31:052 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: 31:065 or consent of instructor; junior standing.

31:164. Professional Practice of Interior Design — 2 hrs.

Survey of field opportunities; future professional role, business ethics and responsibilities of the designer, client-designer and trade relationships. Prerequisite or corequisite: 31:128.

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 skills to assist families and individuals make responsible financial decisions. Prerequisite: junior standing.

31:172(g). Home Management Applications — 3 hrs.

Application of resource management theory and content; emphasis on management in dual career, low-income, single-parent, handicapped, and aging families/households. Computer applications in design, family and consumer sciences and household management. Prerequisites: 31:038 and 31:070; junior standing.

31:173(g). Home Management Applications Lab — 1 hr.

Demonstrate selection, use, care and maintenance of equipment in the home and classroom. Prerequisite: junior standing or consent of instructor. Corequisite: 31:172 for teaching majors.

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; junior standing; and consent of instructor.

31:180. Instructional Strategies: Applied Design, Family and Consumer Sciences — 3 hrs.

Application of teaching/learning theory, developmental concepts, social processes, and teaching strategies for teaching individuals and small groups in nonschool settings. This course is designed for Dietetics or Nutrition and Food Science or Family Services majors and does not apply to a teaching major. Prerequisite: 40:008. Prerequisite or corequisite: 31:130 or 31:137 or 31:153.

31:181(g). 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 I of the Common Professional Sequence and at least 20 credit hours of required departmental courses; junior standing. Corequisite: 31:190.

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: junior standing. Prerequisite or corequisite: 31:190.

31 Design, Family and Consumer Services

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31:184(g). Topics — 1-3 hrs.

Selected topics relating to current issues in design, family and consumer sciences. Topics to be announced in the Schedule of Classes. May be repeated for maximum of 4 hours but not in the same topic. Prerequisite: junior standing or consent of instructor.

31:188(g). Problems in Education — 1-4 hrs.

(1) Home Economics Education; (2) Curriculum Planning. Prerequisite: senior standing and consent of instructor.

31:190. Methods in Home Economics — 3 hrs.

Roles of home economics teacher. Planning and evaluating the teaching of home economics including microteaching experience. Prerequisites: Level I and II of the Common Professional Sequence and at least 25 credit hours of required departmental courses. Corequisite: 31:181.

31:191(g). Research Methods in Design, Family and Consumer Sciences — 3 hrs.

Evaluation of current research in design, family and consumer sciences and development of research proposals. Prerequisites: introductory statistics course or consent of instructor; junior standing. (Formerly 31:281.)

31:193. Design, Family and Consumer Sciences as a Profession — 1 hr.

History, philosophy, professional ethics and organizations, and relationships of the design, family and consumer sciences profession; discussion of roles and opportunities for the new professional in design, family and consumer sciences. 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 consent of instructor.

Sec. 1. Clothing and Textiles — 4 hrs.; prerequisite: All major work and business courses must be completed.

Sec. 2. Nutrition and Food Science — 4 hrs.

Sec. 3. Design and Human Environment — 4 hrs.; prerequisite: All course work must be completed.

Sec. 4. Family Services — 4 hrs.; prerequisite: 31:156.

31:198. Independent Study.

31:199. Study Tour — 2-3 hrs.

31:250. Family Life and Human Sexuality — 3 hrs.

Explores human sexuality over the life cycle and its relation to family life; includes current literature, films, and research findings. Relevant for family life and sex education in home and school. Prerequisite: 31:057 or consent of instructor.

31:252. Human Development Through the Life Span — 3 hrs.

Principal conceptual frameworks in human development. Includes review of theories of child and adolescent development, and in-depth look at adult and family interactions and stages of maturity and old age. Prerequisite: 20:030 or 31:055 or 40:120 or equivalent.

31:282. Supervision and Leadership Development in Design, Family and Consumer Sciences — 2 hrs.

Basic principles of supervision and leadership including theory and research. Application within the school setting and other supervisory positions.

31:284. Current Issues and Trends in Design, Family and Consumer Sciences — 3 hrs.

Examination of issues faced by design, family and consumer sciences and current trends in the field.

31:285. Readings in Design, Family and Consumer Sciences — 1-6 hrs.

Readings in various areas according to student needs.

31:288. Problems in Design, Family and Consumer Sciences — 1-4 hrs.

Various areas according to students' needs. 1. Human Development and Family Life; 2. Nutrition and Food Science; 3. Clothing and Textiles; 4. Design and Human Environment; 5. Management and Consumer Education.

31:290. Practicum — 2-3 hrs.

(Non-teaching.) Experience in various areas according to student needs. May be repeated for up to 8 hours of credit.

31:299. Research.

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33:005. Production Systems — 2 hrs.

Introduction to construction and manufacturing technology. Evolution, systems, research and development, and planning and control of production. Evaluation of industrial consumer products.

33:007. Materials in Manufacturing — 2 hrs.

Materials, material numbering systems, material identification, and processing implications for contemporary manufacturing.

33:008. Materials Processing in Manufacturing — 3 hrs.

Mass reducing, mass conserving and surface treatment processes used in modern manufacturing.

33:016. Orientation to Construction Management — 1 hr.

Orientation to the profession of construction management. Corequisite: 33:018.

33:017. Computer-Aided Drafting — 3 hrs.

Fundamental concepts and procedures of producing graphics applicable to design and/or drafting in such areas as art, architecture, cartography, communications, electronics, manufacturing, and interior planning. Lab activities using CAD software on microcomputer systems.

33:018. Construction Resources — 3 hrs.

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.

33:020. Communication Systems — 2 hrs.

Industrial communications, emphasis on visual and audio systems. Concepts of design, production, and dissemination methods; factors involved in design and distribution of industrial consumer products.

33:022. Communication Technology — 5 hrs.

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 — 3 hrs.

Orthographic projection, auxiliary and sectional views, dimensioning, assembly and detail drawings. Uses manual and computer-aided graphics technology. Prerequisite: 33:017 or consent of instructor.

33:025. Construction Graphics — 3 hrs.

Analysis of the techniques utilized in the designing and developing of specifications and working drawings for commercial construction. Prerequisite: 33:018.

33:027. Construction Materials — 3 hrs.

Materials of construction; their properties, manufacture, characteristics and application. Prerequisites: 33:018; 80:048; or consent of instructor.

33:033. Construction Surveying — 3 hrs.

Land, topographic, power, pipeline, highway and municipal surveying. Analysis of coordinate geometry, transverse computation, horizontal, vertical and spiral curve design and layout. Prerequisites: 33:018; 80:048.

33:036. Power Technology — 3 hrs.

Basic applications of specific principles of energy and power systems. Demonstrations of instrumentation, procedures analysis and reporting.

33:037. DC and AC Theory — 3 hrs.

Fundamental concepts, laws, and principles of direct and alternating current as applied to industrial technology. Prerequisite: 33:036.

33:038. Industrial Electricity — 3 hrs.

Study of AC concepts as associated with motors, generators, transformers, control devices, and electrical distribution systems. Prerequisite: 33:036 or consent of instructor.

33:041. Machine Tools — 3 hrs.

Precision measurement and layout techniques; tool geometry and fabrication; advanced machining techniques and related information. Prerequisite: 33:008

33:045. Construction Law — 3 hrs.

Examination of construction contract principles, construction documents and the component parts of law affecting construction operations. Prerequisites: 33:025 and 33:027.

33:050. Commercial and Heavy/Highway Construction — 3 hrs.

Examination of systems and operational procedures used to construct commercial, and heavy and highway projects. Prerequisites: 33:025; 33:027; 33:033; 12:030; 80:048.

33:055. Graphic Arts Technology — 4 hrs.

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. (Formerly 33:155.)

33 Industrial Technology

33:060. Fundamentals of Automated Manufacturing — 3 hrs.
Point-to-point NC programming, continuous-path CNC programming, robotics, automated flow lines and line balancing.

33:070. Desktop Composition — 2 hrs.
The use of Microcomputer and peripherals for design of publications.

33:100. Special Topics in Construction — 3 hrs.
Senior group research project pertaining to a topic in construction. Includes an oral and written presentation of the findings, conclusions and recommendations. Prerequisites: 33:153; 33:185.

33:101(g). History and Philosophy of Vocational-Technical Education — 2 hrs.

Philosophy and historical development, principles, practices, and organization of public vocational-technical and adult education in the nation. Prerequisite: junior standing or consent of instructor.

33:105. Automotive Fundamentals — 2 hrs.
A consumer-oriented introduction to automotive technology. Includes automotive principles and basic maintenance of the automobile.

33:106(g). Geometric Dimensioning and Tolerancing — 2 hrs.
Geometric dimensioning and tolerancing theory and application pertaining to ANSI Y14.5M-1982 standards with respect to features, orientation, datums, location, and material condition. Prerequisites: 33:024; junior standing; or consent of instructor.

33:110. Descriptive Geometry — 3 hrs.
Graphic solution to geometric problems pertaining to industrial product design. Projections and solution of space problems involving points, lines, planes, connectors, intersections and developments. Uses manual and computer-aided graphics technology. Prerequisites: 33:024; 33:017 or consent of instructor.

33:112. Manufacturing Senior Project: Phase 1 — 1 hr.
Identification and refinement of a manufacturing problem requiring the application of design, production processing and management practices. Prerequisites: senior standing; Manufacturing Technology major; 12 semester hours completed in major concentration; 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. Uses manual and computer-aided graphics technology. Prerequisites: 33:007; 33:008; 33:024; 33:170 or 33:172; junior standing; 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: 33:007; 33:008; 33:022; consent of instructor.

33:118(g). Technical Illustration — 3 hrs.
Pictorial drafting, shading, and rendering using manual and computer-aided graphics technology. Prerequisites: 33:017; 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 81:070 (BASIC); major in Department of Industrial Technology; or consent of instructor.

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: 33:007; 33:008; 33:022; or consent of instructor.

33:122(g). Advanced Computer-Aided Drafting and Design (CADD) — 3 hrs.
Design and development of complex two- and three-dimensional models. Includes instruction and productivity techniques, system customization, translation of graphic data bases, and system management. Prerequisites: 33:017; junior standing; 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 consent of department.

33:126. Applied Thermodynamics and Prime Movers — 3 hrs.
Develops concepts of thermodynamics and explores their application to industrial prime movers through lecture and laboratory experiences. Prerequisites: 33:036; 80:048; or consent of instructor.

33:127(g). Electron Microscopy and Applications — 3 hrs.
A study of electron microscopy and its applications, including electron beams, electron-solid interaction, deflection of electrons, electron imaging of materials, specimen preparation, and interpretation of electron micrographs. Prerequisites: junior standing; 87:130 or 88:056; or consent of instructor.

33:128. Electrical and Mechanical Systems in Construction — 3 hrs.
Basic principles, methods, and equipment pertaining to building component systems (electrical, heating, cooling, and plumbing) related to human health and comfort. Prerequisite: 33:050 or consent of instructor.

33:129. Mechanical Power Systems — 3 hrs.
Develops concepts of mechanical power systems in detail through study of industrial applications. Prerequisites: 33:036; 88:054; or consent of instructor.

33:130(g). Metal — 2 hrs.
Advanced instruction in one of the following: oxyacetylene welding, electric arc welding, foundry, sheet metal, metal spinning, ornamental iron, forging and heat treating, and art metal and enameling. Prerequisites: 33:007; 33:008; 33:022; junior standing; or consent of instructor.

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: 33:007; 33:008; 86:020 or 86:044; junior standing; or consent of instructor.

33:134(g). Metalcasting Technology — 3 hrs.
Green sand molding and other metalcasting processes, non-ferrous and ferrous melting and pouring practice cores, patternmaking and sand technology. Prerequisites: 33:007; 33:008; junior standing; or consent of instructor.

33:135. Practicum in Material Processing Technology — 1 hr.
Participation in supervision of students in 33:008. Prerequisites: Minimum grade of B in 33:007; 33:008; or consent of instructor.

33:138. Electron Microscopy Application in Metal Casting — 3 hrs.
Electron microscopy as applied to defect analysis in metal castings. Prerequisite: 33:134.

33:139. Electronic Circuit and Board Development — 3 hrs.
A course designed to give students experiences in the design of electronic circuits and printed circuit boards, also the manufacture and assembly of the printed circuit board. Prerequisites: 33:152; high school drafting; or consent of instructor.

33:143(g). Planning and Controlling Manufacturing Systems — 4 hrs.
Manufacturing functions related to forecasting, project planning, operations cost analysis, plant layout, process planning and control, inventory control, and quality control. Prerequisites: 80:072 or 80:172; junior standing; or consent of instructor.

33:145(g). Improving Manufacturing Systems — 2 hrs.
Emphasizes the production functions related to methods study, work measurement and work sampling. Prerequisites: 33:008; junior standing.

33:146(g). Computer Numerical Control Programming — 2 hrs.
Advanced programming techniques for machining centers and turning centers. Prerequisites: 33:060; junior standing; or consent of instructor.

33:147(g). Computer-Aided Manufacturing/Robotics — 3 hrs.
Robot programming, robot workcell design and robot implementation strategies. Prerequisites: 33:060; 33:119 or 81:070; junior standing.

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.

33:149. Construction Estimating — 3 hrs.
Construction cost analysis techniques for estimating materials, labor, equipment, and subcontracting costs in commercial building construction. Prerequisites: 33:045; 33:050; 33:128.

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: 33:055 and junior standing.

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. Prerequisites: 33:037; junior standing; or consent of instructor.

33:153(g). Construction Project Planning, Scheduling and Controlling — 3 hrs.

Further development of estimating expertise in previous courses with emphasis on planning, scheduling, and controlling of construction projects based on the use of CPM and Precedence Programming. Assessment of computer-aided scheduling and control systems. Prerequisites: 33:154; 33:175; 12:031.

33:154. Computerized Construction Estimating — 2 hrs.

Utilizing computer software and advanced estimating techniques. Prerequisite: 33:149.

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). Microcomputer Architecture and Instruction Set — 3 hrs.

Microprocessors and supporting chips instructions, peripheral devices that constitute a functioning microcomputer. Software design and development, input-output devices, interfacing, and AD/DA conversion included. Prerequisites: 33:156; 80:070; junior standing; 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 33:055.

33:160(g). Instrumentation and Interfacing — 2 hrs.

Sensor and transducer used in process control; measuring techniques, physical parameters, sensor operation, transducers, operational amplifiers, analog-digital and digital-analog converters. Prerequisites: 33:157; junior standing; or consent of instructor.

33:161(g). Photoconversion Processes — 3 hrs.

Intensive study of high contrast photography through halftones, duotones, posterizations, contacting, line negatives, spreads and chokes, and color proofing. Industry practices closely simulated. Prerequisites: 33:022 and 33:055; junior standing.

33:162(g). Applied Fluid Power — 3 hrs.

Basic fluid mechanics including pneumatics with emphasis on principles and applications to the fields of power, transportation, automation (production), and control. Practical mathematical problems and experiments provide greater insight. Prerequisites: 33:036; 80:048; junior standing or consent of instructor.

33:163(g). Imagesetting and Copy Preparation — 3 hrs.

High resolution copy preparation of computer generated type, artwork, and continuous-tone images prepared for printing production. Prerequisites: 33:022 and 33:055; junior standing.

33:164(g). Programmable Logic Controllers (PLC's) and Process Control — 3 hrs.

Programmable logic controllers (PLC's) and automated process control; design and implementation of an automatic controlled industrial process. Prerequisites: 33:160; junior standing; or consent of instructor.

33:166(g). Power Systems Analysis — 3 hrs.

Techniques and procedures for troubleshooting radio and television, digital, and industrial equipment using electrical, mechanical, fluid, and thermal systems. Prerequisites: 33:129; 33:156; junior standing; or consent of instructor.

33:169. Applied Photography — 4 hrs.

Photographic fundamentals; emphasis on photographic systems; electrical, optical, mechanical, chemical and light-sensitive component areas. Prerequisite: 33:020 or consent of instructor.

33:170. Statics and Strength of Materials — 4 hrs.

Testing, evaluating, and reporting material characteristics and strength, and probable usefulness in the construction of products. Prerequisites: 80:048; 88:054; or consent of department.

33:171. Technical Work Experience — 2 hrs.

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, finance, decision making, labor relations, marketing, quality control, marketing and computer applications. Analysis of office and field problems. Prerequisites: 33:153 and 33:185.

33:174. EMST Research and Development (Phase I) — 1 hr.

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 Electro-Mechanical Systems Major, and consent of instructor.

33:175. Structural Analysis in Construction — 3 hrs.

Structural analysis of wood, concrete, steel and composite building systems. Also, emphasis placed on topics such as the design of formwork and scaffolding. Prerequisites: 33:050; 33:170.

33:176. EMST Research and Development (Phase II) — 3 hrs.

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. Prerequisites: 33:007; 33:008; junior standing; or consent of instructor.

33:178. Technology Education Research and Development — 2 hrs.

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.

33:180. Orientation to Industrial Vocational-Technical Training — 2 hrs.

A sequence of learning experiences enabling the participant to demonstrate preservice teaching competencies as required by the State Plan for the Administration of Vocational Education within Career Education for Iowa.

33:181(g). Instructional Design for Technical Education — 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.

33:185(g). Methods Improvement and Quality Control Assurance in Construction — 3 hrs.

Analysis and evaluation of methods improvement techniques and management of quality assurance and quality control. Prerequisites: 33:154; 33:175.

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.

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). Implementing Technical Instructional Programs — 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.

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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.

33:193(g). Evaluation in Technical Instructional Programs — 2 hrs.

Basic concepts and techniques for evaluating students and programs in vocational-technical education. Prerequisites: 33:181 or consent of department; 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; 33:158; 33:187.

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.

33:196(g). Industrial Safety — 2 hrs.

Introduction to field of industrial safety with emphasis on compliance with Occupational Safety and Health Act (OSHA) in industrial and educational environments. Prerequisite: junior standing.

33:197. Manufacturing Senior Project: Phase II — 3 hrs.

Development and implementation of a solution to the manufacturing problem as defined in phase one (33:112). Includes execution of a project management plan and presentation of results. Prerequisite: 33:112.

33:198. Independent Study.

33:200. Industrial Technology Concepts and Issues — 2 hrs.

Survey of the major topic areas of industrial technology and the professional issues in the field with the development of a Personal Career Development Plan (PCDP) in respect to those concepts, issues and concerns. Prerequisite: consent of department or instructor.

33:228. Contemporary Theories — 2 hrs.

Practices and procedures in industry and education. Developments in technology.

33:250. Technology of Productivity Improvement — 3 hrs.

Productivity as an operational concept will be explored and analyzed for ways in which productivity in industrial settings can be improved through technical and managerial expertise. Prerequisite: admission to graduate standing in industrial technology or consent of instructor.

33:254. Advanced Industrial Materials — 3 hrs.

Introduces theoretical aspects and characterization of materials used in industry as well as their structures and basic properties. Provides a comprehensive treatment of the concepts dealing with the manufacturing techniques of industrial materials. Also includes structures and properties of new and advanced industrial materials. Prerequisites: 33:132 or 33:172; consent of instructor.

33:258. Quality Assurance — 2 hrs.

Evaluation of statistical techniques and control charts used for quality control in manufacturing applications, foundations of reliability, inspection procedures, and acceptance procedures based on the reliability of products. Economic-based acceptance sampling, optimization of system reliability, and organizational and managerial aspects of quality assurance will be emphasized as well as their implementation.

33:260. Occupational Safety and Health Principles — 3 hrs.

An emphasis on the principles of safety management which focus on the elements of an effective safety program, organizing and decision-making, safety organization, accident investigation, and situations where programs and techniques of occupational safety training can be developed. Other aspects included will be hazard analysis and risk assessment, problem analysis and system safety techniques, labor/management safety committee. Prerequisite: 33:196 or consent of instructor.

33:270. Research Projects in Industrial Technology — 3 hrs.

Problems will involve investigation, application, demonstration, and reporting of research findings in specialized areas of industrial technology. May be repeated for a total of 9 semester hours. Prerequisite or corequisite: 33:292 or consent of instructor.

33:271. Industrial Experience — 2-3 hrs.

An opportunity for industrial technology students to integrate classroom learning and experience in an industrial setting. Limited to master's degree candidates. Prerequisites: consent of advisor 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 problems relating to production systems, communication systems, and power systems. May be repeated for up to a maximum of four semester hours of credit.

33:284. Industrial 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.

33:290. Training and Development in Industrial Technology — 3 hrs.

The systematic application of training to enhance industrial productivity and development of the various techniques and skills to assess training needs, develop and evaluate training programs and manage the training process in an industrial environment.

33:291. Technical Program Development — 2 hrs.

Advanced methods of identifying, analyzing, selecting, and organizing instructional content for technical programs. Prerequisite: 33:181 or consent of department.

33:292. Research Methods in Industrial Technology — 3 hrs.

Principles of methods and evaluation of research in industrial technology. Individual exploration of possible projects or thesis topics.

33:294. Concepts of Technological Innovation — 3 hrs.

Concepts of research and development activity as an element in the industrial, 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.

33:295. Advanced Management and Supervision Technology — 3 hrs.

Development of knowledge, skills, and advanced application experiences of management technologies utilized in industrial supervision and management. Prerequisites: 15:153 or 33:143; 33:187; or consent of instructor.

33:296. Administration of Industrial Technology Programs — 2 hrs.

Basic analyses and applications of theories, principles, models, processes, organizational structures, and problems commonly related to the administration and management of industrial technology programs in higher education institutions. An understanding of relative roles and responsibilities of leadership, an application of administrative theory and the examination and treatment of foundations, and contemporary problems of departmental administration.

33:299. Research.

33:300. DIT Post Comprehensive Registration.

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.

33:377. Readings in Technology and Society — 3 hrs.

Current readings on technology and society, emphasis on analysis and discussion of the issues. Prerequisite: 33:376.

33:378. Technology, Ethics and the Technologist — 3 hrs.

Examines the values and ethics of a technological society and the input of the technologist into the decision-making process of a technological organization. Prerequisites: 33:375; 33:376; 33:377; or consent of instructor.

33:388. Internship — 6 hrs.

Offered in education and industry to provide practical experience in teaching, supervision, administration, or management. May be taken once in educational environment and once in industrial environment. Prerequisites: consent of advisor; advancement to candidacy; completion of at least 21 semester hours in required core.

33:399. Research (Doctoral Dissertation).

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. Open to freshmen and sophomores.

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 descriptive cataloging rules; principles and use of the Dewey Decimal Classification and Sears subject headings; adaptations and procedures for all formats found in library media centers.

35:121(g). Introduction to the School Library Media Center — 3 hrs.

Presents the rationale for school library media centers, the forces which shape their development, and the tasks of acquisitions, processing, circulation, and collection maintenance. Includes observation and participation in a school library media center.

35:132(g). Library Materials for Children — 3 hrs.

Survey of school media with attention to selection principles, evaluation criteria, and utilization of book and non-book media for the elementary school curriculum.

35:134(g). Library Materials for Young Adults — 3 hrs.

Selection and evaluation of curricular-related materials for secondary school student's reading, viewing and listening interests, habits, and needs.

35:223. School Library Media Curriculum Development — 3 hrs.

Role of library media specialist in school curriculum development projects, development of integrated information skills curriculum and instructional strategies; professional development programs. Prerequisites: 35:121; 35:132 or 35:134.

35:225. Administration of the School Library Media Center — 3 hrs.

Special problems in organization and administration of library media centers. Prerequisites: 35:113, 35:121, and at least one other library science course.

35:230. Computer Applications in Libraries — 3 hrs.

Emphasis on applications of computers in libraries for: the acquisition, indexing, cataloging, retrieval, and dissemination of information and materials; the instruction of students; and resource sharing networks. Prerequisites: 35:113; 35:115; 35:250.

35:236. History of Children's Literature — 3 hrs.

Traces development of literature for children. Emphasis on significant authors, illustrators, and titles. Prerequisite: 35:132 or consent of instructor.

35:241. Topics in Library Materials — 3 hrs.

Selected aspects of K-12 school library media center materials. Participation in structuring learning experiences based on student needs and interests. Prerequisites: 35:113; 35:132 or 35:134 or consent of instructor.

35:250. 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. p S

35:285. Individualized Readings — 1-3 hrs.

Directed study of specific issue or problem based on student's needs or aspirations. Prerequisite: consent of department head.

35:289. Seminar — 2-3 hrs.

Critical assessment of the elements of school library media services at the building and system levels. Prerequisite: 35:225 or consent of instructor.

35:290. Practicum — 1-4 hrs.

Experience in the function and services of the school library media center. Prerequisite: consent of department head.

35:295. Research in Library and Information Science — 3 hrs.

Basic techniques of research methodology—historical, descriptive, and experimental; includes critical evaluation of library/media center studies and their influence on, or application to, services, organization, and administration.

35:299. Research.

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.

40:045. Research Methods — 4 hrs.

Introduction to fundamentals of psychological inquiry. Emphasis on experimental research but all major approaches (correlational, field, clinical, phenomenological) considered. Prerequisite: Must be a declared psychology major or minor.

40:049. Psychological Statistics — 4 hrs.

An introduction to the basic methods of collecting, organizing, and analyzing psychological data. Emphasis is placed on statistical inference, e.g., t tests, F tests, and selected non-parametrics. The course is designed to provide the student with the basic statistical concepts and skills necessary for the laboratory and survey work and to provide adequate quantitative background for understanding psychological literature. Prerequisites: 40:008; 40:045; and one college-level mathematics course or consent 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. Prerequisite: 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 consent of department; 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.

40:125(g). Child Psychopathology — 3 hrs.

Overview of childhood problems ranging from minor problems in adjustment to severely disabling disorders; primary focus on research findings relevant to assessment, etiology, prognosis, and management. Prerequisites: 40:008; plus any one from 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.

40:130(g). Computer Programming for Psychological Applications — 3 hrs.

Programming and utilization of library programs and systems. Statistical analysis and real-time control problems common in psychological applications. Prerequisites: 40:049; 81:070; or consent of instructor.

40:142(g). Abnormal Psychology — 3 hrs.

Causes of abnormal behavior. Characteristics of major abnormalities. Classification of organic and functional disturbances. Prerequisites: 40:008; junior standing.

40:145. Animal Conditioning Laboratory — 1-2 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.

40 Psychology/41 Health

40:149(g). Principles of Psychological Testing — 3 hrs.

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.

40:150. Conditioning and Learning — 3 hrs.

Basic concepts and processes in learning. Prerequisite: 40:045.

40:152(g). Sensation and Perception — 3 hrs.

Sensory and perceptual processes and states with emphasis on visual 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.

40:155. Physiological Psychology — 3 hrs.

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.

40:160. Introductory Social Psychology — 3 hrs.

Overview of social psychology from perspective of general psychology; includes social perception, attraction and liking; affiliation, social influence, group dynamics, and attitude formation and change. Prerequisite: 40:008 or equivalent.

40:161. Psychology of Personality — 3 hrs.

An introduction to major theoretical models of personality and to applications derived from these theories, and an overview of empirical findings in selected topics in personality. Prerequisite: 40:008.

40:162(g). Social Psychology — 3 hrs.

Analysis of research and major theories in social psychology. Emphasis on the application of social-psychological principles to contemporary issues. Prerequisites: 40:008; 40:160; 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 and the management of psychological disorders. Prerequisite: junior standing or consent 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 consent of instructor.

40:171(g). Cognitive-Behavioral Therapy — 3 hrs.

Current approaches to evaluating and modifying human behavior, focusing on a cognitive behavioral perspective. Includes: behavioral self-control, biofeedback, assessment and modification of addictive behavior. Prerequisites: senior standing; 40:123; or consent of instructor.

40:173(g). Psychology of Aging — 3 hrs.

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.

40:189(g). Seminar in Psychology — 1-3 hrs.

Provides opportunity to correlate previous course work and knowledge in field of psychology. May be repeated for up to 6 hours of credit. Prerequisites: 15 hours in psychology, including 40:045 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.

40:192(g). Practicum in Teaching Psychology — 2-3 hrs.

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.

Conduct a supervised research or scholarly project. A total of six hours of credit may be allowed. Highly recommended for students planning to enter graduate programs. Prerequisites: 40:049; 15 hours in psychology; and consent of instructor. Majors with an overall GPA of at least 3.50 may earn departmental honors if their projects are deemed worthy of honors by the department.

40:225. Advanced Psychopathology — 3 hrs.

An examination of alternative models of psychopathology with emphasis on genetic, physiological, and developmental determinants of behavior disorders. Review of the empirical literature on the etiology, maintenance, and treatment of disordered behavior. Prerequisites: graduate standing in psychology or consent of the instructor.

40:239. Advanced Statistics and Research Design — 3 hrs.

Review of elementary descriptive and inferential statistics, analysis of variance and covariance models, multiple linear regression and the generalized linear model, and specialized topics in multi-variate analysis. Prerequisites: Previous courses in statistics and graduate standing in psychology, or consent of instructor.

40:240. Learning — 3 hrs.

Empirical and theoretical approaches to animal and human learning covering topics in classical and instrumental conditioning. Prerequisite: graduate standing in psychology or consent of instructor.

40:249. Cognitive and Intellectual Assessment — 3 hrs.

An introduction to the nature, use, and interpretation of tests for assessing intelligence and cognition in varied populations in this and other cultures. Prerequisite: graduate standing in psychology or consent of the instructor.

40:250. Cognition — 3 hrs.

Survey of contemporary (and historical) approaches to mind, including findings and methods of psycholinguistics, information processing, computer simulation, structuralism, and experimental cognitive psychology. Prerequisite: graduate standing in psychology or consent of instructor.

40:251. Psychological Measurement — 3 hrs.

Scaling, psychometric methods and selected topics in multivariate analysis. Prerequisite: 40:239.

40:260. Personality — 3 hrs.

A comparative study of major personality theories and techniques of personality assessment. Prerequisite: graduate standing in psychology or consent 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 consent of the instructor.

40:289. Seminar.

40:297. Practicum.

40:299. Research.

41 Health

41:005. Orientation to Health Education — 1 hr.

An orientation to (1) the process and profession of health education, (2) the competencies and skills necessary for successful entry into the profession, and (3) the responsibilities of health educators in various professional employment settings.

41:010. 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.

41:011. Standard First Aid and Community CPR — 2 hrs.

American Red Cross Standard First Aid and American Red Cross Community CPR. Certification to those who qualify.

41:015. Personal Health — 2 hrs.

Designed to develop the understandings, attitudes, and practices which contribute to better individual health.

41:018. 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. Prerequisites: 42:050 or 42:124 or 84:030; junior standing or consent of instructor. (Formerly 41:175g.)

41:020. Maternal and Infant Health — 2 hrs.

Introduction to and preparation for the events surrounding motherhood; emphasis on conception, pregnancy, prenatal health care, childbirth, and development of early infant-handling skills.

41:060. Medical 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.

41:125. Aging and Health — 3 hrs.

Introduction to basic aging and health concerns of older individuals, and to broader issues of aging, health, and society. Study of aging demographics, biomedical aspects of aging, and selected issues of health and aging.

41:135. Elementary School Health Education Methods — 2 hrs.

Examines the role of the teacher in planning, delivering, and evaluating health education; instructional methods and materials will be introduced and their use will be demonstrated and practiced.

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. Secondary School Health Education Methods — 2 hrs.

Examines the role of the teacher in planning, delivering, and evaluating health education; instructional methods and materials will be introduced and their use will be demonstrated and practiced.

41:142(g). Health Problems in the School — 2 hrs.

Awareness of student health and health problems; emphasis on prevention of health problems, class environment, communicable diseases and their control and effective teacher referral within the school and to community health agencies. Prerequisite: junior standing or consent of instructor.

41:144. Health Education Curriculum — 2 hrs.

Introduction to existing curricular models and the processes involved in developing materials and the appropriate scope and sequence of learning activities in elementary, middle and high school health education.

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 — 3 hrs.

Selected social, behavioral, and communication theories and ethical principles underlying health education practice; emphasis on implications for health education. Prerequisite: junior standing or consent of instructor.

41:156(g). Dynamics and Methods of Health Behavior Change — 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.

41:158(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.

41:160. Community and Public Health — 3 hrs.

Public health activities concerned with protection and care of the individual; focuses on factors that may be inimical to human beings. Prerequisite: junior standing.

41:162. Women's Health — 2 hrs.

A study of contemporary issues in women's health. Includes consumerism, feminism, the physician-patient relationship in the gynecological, family, and general practice settings, 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/degeneration disorders afflicting humans. Current trends in diagnosis, treatment, and preventive measures. Prerequisite: 42:050 or 84:030.

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 consent of Health Coordinator.

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.

41:176(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 or 80:072; 41:153; junior standing.

41:177(g). Advanced Athletic Training — 2 hrs.

Application in the field of athletic training: organization and administration, education and counseling, drug education/drug testing, advanced taping and evaluation techniques. Prerequisite: 41:018.

41:182(g). Recognition and Evaluation of Athletic Injuries — 2 hrs.

Prerequisites: 41:018; 42:151.

41:183. Remedial Exercises for Athletic Injuries — 2 hrs.

Theory and practice in developing individualized exercise programs used in injury rehabilitation. Prerequisites: 41:182; 42:125 or 42:153.

41:184(g). Modalities in Athletic Training — 2 hrs.

Physiological effects, indications and contraindications, and the physics of modalities used in injury rehabilitation. Prerequisites: 41:018; 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: consent 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: 41:018; 42:151.

41:189. Seminar in Community Health Education — 3 hrs.

Focus on issues in community health education and the transition from student role to health educator role. Prerequisite: senior standing.

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.)

41:272. Evaluation of Electrocardiograms — 2 hrs.

Study of the electrocardiogram, including leads in common use, cardiac rhythm and rate, normal and abnormal complexes, electrical axes, and genesis of precordial pattern, bundle branch — blocks, arrhythmias, and infarctions. (Cross listed as 42:272.)

41 Health/42 Physical Education

41:275. Cardiovascular Stress Testing — 2 hrs.

Principles of graded exercise testing and 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.)

41:285. Readings — 1-4 hrs.

41:289. Seminar.

41:290. Philosophy and Ethics of Health Education — 3 hrs.

Analysis of philosophical and ethical issues in health education.

41:293. 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.

41:297. Practicum — 2-3 hrs.

41:299. Research.

42 Physical Education

42:001. (42:Anx series) 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.

42:024. Anatomy and Kinesiology — 2 hrs.

Attention to the skeleton, the muscular system, and to joint construction. Application to analysis of skills and techniques used in coaching. (For coaching minors.) No credit for students with credit in 42:050 and 42:151. (Formerly 42:124.)

42:025. Conditioning Theory and Practice — 2 hrs.

Theory and practice in training and conditioning of athletes. 2 periods. (For coaching minors.) No credit for students with credit in 42:153. (Formerly 42:125.)

42:031. Dance Composition — 2 hrs.

Application of art principles basic to good choreography; advanced technique and composition. Prerequisite: 42:013 plus two dance activity classes of different styles; consent of instructor.

42:032. Intermediate International Folk Dance — 1 hr.

Basic and advanced folk dance skills and dance. Prerequisite: beginning folk dance or equivalent.

42:034. Survey of Dance History — 3 hrs.

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.

42:035. Dance for the Actor — 2 hrs.

Preparation in dance as it relates to musical productions, plays, and other art forms; designed primarily for majors and minors in theatre, music, and dance.

42:041. Introduction to Movement Analysis — 1 hr.

Introduction to the organized analysis of human movement. Required of all physical education majors. Prerequisite or co-requisite to all Fundamental Physical Activities courses.

42:042. Motor Learning and Performance Laboratory — 1 hr.

Use of scientific method and fundamental equipment to illustrate concepts of perceptual-motor behavior and variables which influence motor skill acquisition. Laboratory - 2 periods.

42:043. Methods and Movement Experiences for Children I — 2 hrs.

Philosophy, objectives, and content of physical education for elementary school children; includes movement education, fundamental movement actions, and rhythmic activities. Exploration method emphasized. 3 periods. Prerequisite: sophomore standing. Prerequisite or corequisite: 20:030; 42:013.

42:044. Methods and Movement Experiences for Children II — 2 hrs.

Exploration of growth and development; emphasis on educational gymnastics theory and progression, theory and concepts of teaching games and sports to K-6 children, and curriculum development. 3 periods. Prerequisite: 42:043. Prerequisite or corequisite: 20:040; 42:014.

42:045. Physical Education for the Elementary Grades — 3 hrs.

Teaching methods and experience in activities. 3 periods. Prerequisite: sophomore standing; 20:030, no credit for students with credit in 44:045.

42:050. Anatomy and Physiology of Human Movement — 3 hrs.

Structure and function of skeletal, muscular, cardiovascular, respiratory and gastrointestinal systems.

42:055. Motor Learning and Performance — 2 hrs.

Study of perceptual/motor characteristics of individuals performing and learning movement skills. Variables which influence motor skill acquisition with emphasis on those which are within the teacher's control. Prerequisite or corequisite: 40:008.

42:060. Life Guard Training and Instruction — 2 hrs.

This course consists of American Red Cross material in Basic Water Safety, Emergency Water Safety Lifeguard Training, and Lifeguard Instruction. The opportunity is provided to become certified in the American Red Cross Lifeguarding; Lifeguard Instruction; and Health Services Program which is a prerequisite to becoming an instructor in any area of certification for the American Red Cross.

42:061. Water Safety Instruction — 2 hrs.

This course consists of materials related to the certification of instructors for water safety instruction. Any person wishing to teach aquatics is required to complete this course. Certification is possible through this course.

The following twelve courses provide for the development of a high level of performance and comprehensive understanding and knowledge pertinent to the specific activity.

42:101. Advanced Skill and Coaching Theory — Baseball — 2 hrs.

42:102. Advanced Skill and Coaching Theory — Basketball — 3 hrs.

42:104. Advanced Skill and Coaching Theory — Football — 3 hrs.

42:016 (Football) recommended to precede.

42:105. Advanced Skill and Coaching Theory — Golf — 2 hrs.

42:107. Advanced Skill and Coaching Theory — Soccer — 2 hrs.

42:108. Advanced Skill and Coaching Theory — Softball — 2 hrs.

42:109. Advanced Skill and Coaching Theory — Swimming — 2 hrs.

42:110. Advanced Skill and Coaching Theory — Tennis — 2 hrs.

42:111. Advanced Skill and Coaching Theory — Track and Field — 2 hrs.

42:112. Advanced Skill and Coaching Theory — Volleyball — 2 hrs.

42:113. Advanced Skill and Coaching Theory — Wrestling — 2 hrs.

42:117. Sports Officiating — 1 hr.

Rule interpretation and mechanics of officiating for (1) basketball, (2) field hockey, (3) football, (4) softball, (5) swimming, and (6) volleyball. Primarily for physical education majors, coaching minors and intramural officials. May be repeated in different activities up to 5 hours.

42:118. Practicum in 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 consent of department.

42:120. Organization and Administration of Aquatic Programs — 2 hrs.

Administration of programs, personnel, and facilities; includes pool management and maintenance.

42:122. Psycho-Social Aspects of Physical Activity and Sport — 2 hrs.

Introductory philosophical aspects of sport; psychological and sociological dimensions of physical activity and competitive sport experiences.

42:127(g). **Organization and Administration of Competitive Sports — 2 hrs.**
The organization, administration, and management of interscholastic, intercollegiate, and intramural sports programs. Prerequisite: junior standing.

42:129(g). Advanced Sports Theory — 2 hrs.

Advanced methods course on coaching concepts in specific sports: (1) baseball; (2) basketball; (3) field hockey; (4) football; (5) golf; (6) gymnastics; (7) soccer; (8) softball; (9) swimming; (10) tennis; (11) track and field; (12) volleyball; (13) wrestling. May be repeated for a maximum of six hours of credit. Prerequisite: consent of department head for undergraduates.

42:132. Dance Curriculum — 2 hrs.

Place of dance in the school curriculum; relationships; progressions, and curriculum building. Prerequisites: 42:013 plus two dance activity courses of different styles; consent of instructor.

42:135. Dance Production and Performance — 2 hrs.

Application of technical considerations, costume design, accompaniment, and program planning. Practical application of choreography and/or lecture demonstration in a dance form expected.

42:140. Practicum — 1 hr.

Experiences working with elementary, secondary, adapted, or dance students in activities involving movement. Prerequisite: Methods course appropriate to area, consent of instructor. (Formerly 42:040.)

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. Prerequisites: 20:030; junior standing.

42:146. Movement Notation — 2 hrs.

Written notation system designed to record and analyze dance and human movement.

42:151. Kinesiology — 3 hrs.

Application of principles of mechanics to body movement. Discussion, 2 periods; lab., 2 periods. Prerequisite: 42:050 or equivalent.

42:152(g). Adapted Physical Education — 3 hrs.

Recognition of postural deviations; exercises for specific body parts; understanding specific disabilities; first aid and emergency care; and the modification of physical activities to meet limitations found in school populations. Prerequisites: 42:151; junior standing or consent of instructor. Pre/co-requisite: 20:040.

42:153(g). Physiology of Exercise — 3 hrs.

Physiological responses and adaptations to various types of physical activity. Prerequisites: 42:050 or equivalent; junior standing or consent of instructor.

42:154. Psychological Skills for Sport Participants — 2 hrs.

Understanding of psychological factors which affect performance in competitive sport. Survey of and individualized practice with psychological techniques designed to enhance sport performance.

42:156. Fitness Assessment and Programming — 2 hrs.

Assessment of fitness levels and application to fitness programming including remediation of dysfunction in rehabilitation. Prerequisite: 42:153.

42:157. Adapted Aquatics — 2 hrs.

Teaching swimming to disabled persons. Discussion, 1 period; lab., 2 periods. Prerequisite: W.S.I. for A.R.C. certification.

42:160. Nature and Scope of Physical Education — 2 hrs.

Meaning and significance of physical education including historical, philosophical, and professional considerations. Prerequisites: 62:005 or equivalent; junior standing.

42:163. Methods and Materials in Secondary Physical Education — 3 hrs.

Role of the teacher in planning and teaching physical education in the secondary schools; includes instructional techniques and materials, organization and management. Three periods. Prerequisites: eight Fundamental Physical Activity classes. Prerequisite or corequisite: 20:040.

42:168. Assisting in Physical Education — 1 hr.

Assisting departmental instructor in activity classes. Prerequisite: consent of department. May be repeated once for credit.

42:174. Assessment Processes in Physical Education — 3 hrs.

Concepts of measurement and evaluation; statistical analysis; construction of evaluative instruments; and application of written and performance tests. Corequisite: 20:040.

42:176. Administration and Curriculum Development in Physical Education — 3 hrs.

Administration of programs in the elementary and secondary schools including budgeting, facilities, legal considerations and support services. Design, development and evaluation of curriculum content for grades K-12. Prerequisites: 20:040; 42:160; senior standing.

42:185. Readings in Physical Education — 1-4 hrs.

Individual study in an area of physical education. Credit to be determined at time of registration and to be based on student's proposal. Requires consent of department head.

42:198. Independent Study.**42:200. Computer Applications in Physical Education — 2 hrs.**

Microcomputers and their use in physical education and sports medicine. 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 personality, 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. 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, and genesis of precordial pattern, 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 and including test selection, population selection, ergometer selection, and test interpretation. Experience in test administration. Students are required to participate in the testing of cardiac patients. (Cross listed as 41:275.)

42:277. 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.**42:289. 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 Leisure Services

43:010. Introduction to Leisure Services — 4 hrs.

Introduction to the Leisure Services Profession, including history, philosophy, trends and opportunities. Examination of the components and interrelationships of leisure service delivery systems, focusing on programs and services, facilities, populations served and sources of funding.

43:020. Leadership in Leisure Services — 3 hrs.

Theories, principles, and practices of leisure services leadership; techniques and methods of working with individuals and groups.

43:030. Leisure Services for Persons with Disabilities — 3 hrs.

A basic overview of disabilities, leisure service programs, modifications, and the role of therapeutic recreation for individuals with disabilities.

43:042. Camp Leadership — 3 hrs.

The camping movement. Leadership techniques and laboratory experience. Discussion, 2 periods; lab., 2 periods.

43:110. Programming for Leisure Services — 3 hrs.

Methods and procedures for planning, implementing, and evaluating leisure service programs. Prerequisites: 43:010; 43:020.

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. Management of Leisure Services — 3 hrs.

Introduction to factors of managing leisure services, with focus on personnel management, legal foundations, policy formulation and organizational behavior. Prerequisites: 43:010; 43:020.

43:120. Administrative Practices in Leisure Services — 3 hrs.

Focus on comprehensive planning, organizational and political behavior and relationships, policy development and implementation, funding and the economics of leisure services. Prerequisites: 43:110; 43:114. Prerequisite or corequisite: 43:122.

43:122. Program Management in Leisure Services — 3 hrs.

Study of comprehensive program development and management in community based leisure services, including interaction and facilitation techniques, supervision, and legal concepts and risk management. Understanding of community organization and the relationship of social institutions to leisure services program delivery. Prerequisite: 43:110.

43:123. Foundations of Therapeutic Recreation — 3 hrs.

History, philosophy and theories of therapeutic recreation; professionalism; factors influencing service delivery. Prerequisite: 43:030. Prerequisite or corequisite: 42:050.

43:141. Camp Counseling (Fieldwork) — 2 hrs.

Supervised counseling experience in an organized camp. Prerequisite: consent of Leisure Services Coordinator.

43:142. Outdoor Education — 3 hrs.

Development of competencies in the content, methods, philosophy and historical perspectives in outdoor education; and the ability to design and implement curriculum using out-of-doors as a learning laboratory for all population groups.

43:143. Trends and Issues in Outdoor Recreation — 3 hrs.

Theory and practical application of outdoor recreation concepts (in a consortium experience) with emphasis on philosophies, principles, policies, economics, trends, liabilities and problems.

43:144(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: 43:042; junior standing or consent of instructor.

43:145(g). Interpretive Services in Parks and Recreation — 3 hrs.

Comprehensive study of various methods of interpreting natural, cultural, and historical programs for the general public and methodology for interpreting agency management goals to the visitor of public parks, recreation areas and museums. Prerequisites: 43:142; junior standing or consent of instructor.

43:146(g). Outdoor Recreation Resource Management — 3 hrs.

Comprehensive study of theories, philosophies, methods and planning strategies to facilitate an efficient and effective management of natural resources for the appropriate use by the visitor and the enhancement of a positive attitude of the outdoor recreator toward the natural resource. Prerequisites: 43:142; 43:145; 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: 43:110 or consent of instructor.

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: 43:110 or consent of instructor.

43:152. Volunteerism in Non-Profit Youth-Serving Agencies — 3 hrs.

Management of volunteers in non-profit youth-serving agencies. Prerequisite: 43:110 or consent of instructor.

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. Prerequisite: 43:110 or consent of instructor.

43:160(g). Assessment, Programming and Evaluation in Therapeutic Recreation — 3 hrs.

Methods and techniques used in providing therapeutic recreation to persons with disabilities. Includes field experience. Prerequisites: 31:055 or 40:120; 43:030; 43:123; and verified First Aid and CPR certification. Corequisite: 43:167.

43:163. Administrative Practices in Therapeutic Recreation — 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; 43:167.

43:165. Leisure Services Field Experience — 1-3 hrs.

Supervised observation and leadership experience in a designated program area — aquatics, cultural arts, fitness, outdoor recreation/education, rehabilitation, sports, youth agency administration. May be repeated in different areas for a total of three credits. Prerequisites: 43:010; 43:020; 43:030; and consent of instructor.

43:166(g). Leisure and Aging — 3 hrs.

Role of recreation and leisure in understanding and working with the older adult in community and institutional settings. Prerequisite: junior standing or consent of instructor.

43:167. Intervention Techniques in Therapeutic Recreation — 3 hrs.

Appropriate activity, leadership, and adaptation techniques; includes field experience. Prerequisites: 31:055 or 40:120; 43:030; 43:123. Corequisite: 43:160.

43:168(g). Areas and Facilities for Leisure Services — 3 hrs.

Planning, designing and managing park, recreation and leisure settings, areas and facilities. Prerequisite: 43:110, or consent of instructor.

43:169. Research, Evaluation and Computer Applications in Leisure Services — 3 hrs.

An introduction to research in leisure services, including concepts, procedures, and analyses, as it applies to assessment, planning and evaluation. Application of computers for basic functions in leisure services and familiarity with software applicable to the leisure services field. Prerequisite: 43:110.

43:184. Senior Project in Leisure Services — 1 hr.

Programming, resource or research project to be completed at the internship site. Written and oral presentation required during the internship semester. Corequisite: 43:187. Prerequisite: consent of Internship Coordinator.

43:185. Readings in Leisure Services — 1-3 hrs.

Individual reading and literature review in an area of leisure services. Credit to be determined at time of registration based on student's proposal. Requires consent of instructor.

43:187. Internship in Leisure Services — 14 hrs.

Comprehensive practical experience in area of student's concentration. Must be taken on ungraded (credit/no credit) basis. Prerequisites: 43:189; 500 hours of verified leisure services-related work experience of which 200 hours must be in area of major; current certification in Standard First Aid and Community CPR; consent of Internship Coordinator. Corequisite: 43:184.

43:189. Seminar in Leisure Services — 1 hr.

Study of professional issues and orientation to Internship. To be taken semester immediately prior to Internship. Requires consent of instructor.

43:201. Trends and Issues in Youth/Human Service Agencies — 3 hrs.

Examination and analysis of current trends and issues confronting practitioners in not-for-profit and voluntary-service organizations and agencies.

43:202. Psychosocial Aspects of Leisure — 3 hrs.

Psychosocial dimensions of leisure behavior.

43:250. Management in Youth/Human Service Agencies — 3 hrs.

Management for not-for-profit agencies and organizations.

43:251. Financial Decision Making for Youth/Human Service Agencies — 3 hrs.

Financial function of the not-for-profit agency incorporating technical materials applicable to the decision-making role of the agency.

43 Leisure Services/44 Health, Physical Education and Leisure Services, Interdepartmental/45 Social Work

43:252. Philanthropy and the Management of Volunteers — 3 hrs.

Philanthropy and volunteerism in the not-for-profit sector.

43:253. Fund Raising and Grantsmanship for Youth/Human Service Agencies — 3 hrs.

Comprehensive study of various funding sources and the methodology of not-for-profit organizations to secure resources.

43:254. Marketing the Youth/Human Service Agency — 3 hrs.

Marketing strategies in implementing the exchange relationship between not-for-profit organizations and their constituents.

43:291. Internship — 2-6 hrs.

Experience in youth/human services with community agencies. Requires consent of graduate committee.

44 Health, Physical Education, and Leisure Services, 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.

44:045. Health and Physical Education for Elementary Teachers — 3 hrs.

Methods and materials in health education and physical education appropriate for children. (No credit for students with credit in 42:045 or 41:135.) (Prerequisite of 20:030.) No credit given to physical education majors or minors.

45 Social Work

45:041. Social Welfare: A World View — 3 hrs.

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).

45:042. Social Services and Social Work — 3 hrs.

Legal aspects, goals, and values of the social work profession, and roles of the social worker in social service agencies. Prerequisite: 45:041 or consent of instructor.

45:045. American Racial and Ethnic Minorities — 3 hrs.

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 folkways and mores of each group will be given as well. (Same as 98:045.)

45:091. Social Work Practice I — 3 hrs.

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.

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. Prerequisites: 98:060; junior standing; 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 and 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.

45:144(g). Social Policies and Issues — 3 hrs.

Policy development and the consequences of policy for social welfare institutions. Frameworks for policy analysis. Planning, program design, and policy decisions for administration of social services. Prerequisites: 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. (Same as 98:130.)

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 serves as organizing framework. Student should have a strong base of courses in human behavior. Prerequisites: 31:055 or 40:120; junior standing; 84:014 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. Prerequisites: junior standing; 45:041; 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 current social programs, 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.

45:175(g). Child Welfare Policy and Practice — 3 hrs.

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.

45:184. Field Instruction — 11-15 hrs.

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; completion of 45:091 and 45:192 with a minimum grade of C in each course; 45:042; 45:164; and 45:185.

45:185. Social Work Research — 3 hrs.

Application of research to social work practice including formulation of research questions and hypotheses, strategies of research design, measurement and methods of collecting data, questionnaire construction, data presentation and report writing. Prerequisites: junior standing; 80:023 or equivalent; 98:080.

45:189. Readings in Social Work — 1-3 hrs.

Prerequisites: 6 hours in social work and consent of department. May be repeated only with consent 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 consent 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.

45:192. Social Work Practice II — 3 hrs.

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.

45:194(g). Seminar in Social Work — 3 hrs.

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 Social Work 50 Communication and Theatre Arts

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.

45:285. Readings — 1-3 hrs.

Prerequisite: consent of instructor.

50 Communication and Theatre Arts

50:009; 50:109. Applied Broadcasting — 1 hr.

Credit available for qualified students who work on campus radio station, KGRK, and/or on other authorized radio/TV/film projects. A maximum of 4 hours credit may be earned. Prerequisite: consent of instructor.

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 interpretation (e.g., participation in Interpreters Theatre, performance in community, campus, or festival settings, or related activity). Maximum of 4 hours credit may be earned. Prerequisite: consent of instructor.

50:017; 50:117. Applied Public Relations — 1 hr.

Credit for approved work in public relations (e.g., problems of campaign on campus or in the community). Maximum of 4 hours credit. Prerequisite: consent of instructor.

50:018. Radio Production — 3 hrs.

Basic operation of radio studio equipment; basic radio production theory and techniques. (May be taken concurrently with 50:060.)

50:021. Play Analysis for Production I — 3 hrs.

Analysis of dramatic forms and styles in preparation for production.

50:022. Play Analysis for Production II — 3 hrs.

Readings and analysis of plays (Greek to the present) in preparation for production. Prerequisite: 50:021.

50:023. Oral Communication — 3 hrs.

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.

50:025. Directing I — 3 hrs.

Analysis of plays and fundamentals of directing. Prerequisite: 50:053.

50:027. Makeup — 2 hrs.

Introduction to basic techniques and materials of makeup for the theatre and the allied performing arts. Requires crew participation on current production. Lab Fee. Discussion, 1 hour/week; lab, 2 hours/week.

50:030. Public Speaking — 3 hrs.

Application of the principles of psychology, sociology, political science, and composition to situations confronting the public speaker. Prerequisite: 50:023 or equivalent.

50:031. Oral Interpretation — 3 hrs.

Introduction to the analysis and presentation of poetry, prose and drama.

50:032. Voice and Diction — 3 hrs.

Study and practice in voice and diction to develop superior vocal and articulatory skill.

50:034. Human Communication — 3 hrs.

Exploration of and experience with concepts and processes involved in interpersonal communication. Prerequisite: 50:023.

50:035. Problems in Interpersonal Communication — 1 hr.

Experiences and insight into one-to-one human communication. Prerequisite: 50:023.

50:037. Mass Communication and Public Relations — 3 hrs.

Survey of mass communication models and their relation to media used in public relations. Media covered include mass media, interactive media, and special events.

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 I — 4 hrs.

Techniques of costume production for theatre and the allied performing arts. Includes basic design and construction methods; painting, dyeing, and developing patterns for period costumes. Requires crew participation on current production. Discussion, 3 hrs./week; lab 4 hrs./week.

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.

50:051. Theatre Graphics I — 3 hrs.

Introduction to design presentation techniques and media. Includes chiaroscuro, perspective, color rendering, figure drawing and an introduction to drafting.

50:052. History of the Theatre I — 3 hrs.

Examination of plays, production methods, and historical trends in the theatre from its beginnings to the Restoration.

50:053. Technical Theatre I — 4 hrs.

Fundamentals of scenery (construction, painting, rigging) lighting and sound production for theatre and the allied performing arts. Requires crew participation on current productions. Discussion 3 hrs./week; lab 4 hrs./week.

50:054. Voice for the Actor — 3 hrs.

Elementary study of voice production designed to free the natural responsiveness of the actor.

50:055. Visual Processes in Theatre — 3 hrs.

An introduction to visual thinking in the theatre and the allied performing arts. Develops strategies and skills in understanding visual problems and creating solutions for them. Discussion/Lab, 3 periods.

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.

50:060. Fundamentals of Broadcasting — 3 hrs.

Basic technical and production components of broadcasting, organization of the industry, audience measurement, and the economic, social, and legal controls on broadcasting within a framework of the historical development of radio and television.

50:061. Television I: Basic Production — 4 hrs.

Theory and practice in planning, organizing, and staging of television programming; and introduction to television equipment. Prerequisites: 50:018; 50:064.

50:062. Broadcast Performance — 4 hrs.

Theory and techniques of microphone and camera performance, styles and formats of audio and video production. Prerequisites: 50:018; 50:031; 50:060.

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. Note: 50:060 not required as prerequisite for PR sections.

50:066. Broadcast News Writing — 3 hrs.

Principles and practice of writing, editing and compiling news for the electronic media. Prerequisites: 50:064; 66:040.

50:077. Principles of Public Relations — 3 hrs.

Introduction of theories, process and techniques involved in researching, planning, and implementing programs designed to influence public opinion and human behavior. Prerequisites: 50:023; 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: 50:052.

50:100. Rhetorical Theory — 3 hrs.

A systematic examination of rhetorical theory and its place in spoken and written discourse; development of an understanding of the functions of rhetoric; and an introduction to terms and concepts of rhetorical theory. Prerequisite: junior standing.

50:101(g). Communication in Education — 2-3 hrs.

The study of communication as it applies to the context of the classroom. Emphasis on the teacher as both source and receiver of messages. Applications in one-to-one, small-group, and public-speaking situations. May not be counted toward meeting requirements of a major or minor in Communication and Theatre Arts. Prerequisite: junior standing.

50:102(g). Nonverbal 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.

50:104. Scripts for Public Communication and Social Change — 3 hrs.

Studies of the social action and public awareness functions of performed literature. Construction of documentary and advocacy scripts, study of literary communication in public relations and persuasion. Prerequisites: 50:031 or equivalent; junior standing.

50:105(g). Freedom of Speech — 3 hrs.

Development of laws and social attitudes that have attempted to regulate communication in the United States; relation of free speech to national security, to regulation of the public forum, and to artistic expression; and analysis of doctrines and tests used by the Supreme Court in interpreting the limits to free expression. Prerequisite: junior standing.

50:106. Folk Narratives in Family Communication — 3 hrs.

Communicative 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.

Costume history for the designer including survey of costume related to major styles of design and methods of costume research. Prerequisite: 50:045; junior standing or consent of instructor.

50:108. Interpretation in Health Communication — 3 hrs.

Uses of oral interpretation of literature in health care and therapeutic settings. Skills in selecting, adapting, and presenting scripts for specific audiences and purposes, including hospitals, elderly homes, and clinics. Prerequisite: 50:031 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.)****50:113(g). Advanced Interpretation — 3 hrs.**

Elements and structure of prose and poetry texts, application of analyses in oral performance. 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.)

50:116(g). Performance in Social Contexts: Theories and Research — 3 hrs. Advanced study of interpretation in public settings and mass communication. Theories, research, and projects in text-context interaction. Prerequisites: 50:031 or equivalent; junior standing or consent of instructor.

50:117. Applied Public Relations — 1 hr. (See 50:017.)**50:118. Oral History Communication — 3 hrs.**

Methods of researching, interviewing, analyzing, and presenting oral history materials. Applications for communication research and performance, including public relations problems and campaigns, interpretation projects in museums and organizational settings. Prerequisite: junior standing.

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. Prerequisite: junior standing.

50:120. Broadcast Management — 3 hrs.

Broadcast management theories, practices and problems including administration, personnel, sales, programming, and engineering. Prerequisites: 50:060; junior standing.

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.

50:125(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.

50:126. Stage Management — 3 hrs.

Introduction to basic techniques, procedures and forms used in stage managing theatre and the allied performing arts. Prerequisites: 50:025; 50:053.

50:127(g). Intercultural Communication — 3 hrs.

Study of variables which affect the accuracy, depth, and success of cross-cultural communication. Prerequisite: 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.

50:12a. Corporate Video Production — 4 hrs.

Advanced theory and practice of producing videos for corporate/industrial use. Examination and implementation of all aspects of the production process, from needs assessment and scripting through testing/evaluation of the final production. Prerequisite: 50:061.

50:130. Creative Dramatics for Children — 3 hrs.

Prepares students to guide children in creative drama. Study of the art of spontaneous drama as it relates to the development of the child.

50:131. Speech Composition — 2 hrs.

Composition and presentation of manuscript speeches with special emphasis on style and attention to rhetorical examples. Prerequisite: 50:030.

50:132(g). Readers Theatre Production — 1 hr.

Advanced problems in preparing scripts and directing readers theatre for public performance. Usually involves directing a readers theatre production. Prerequisites: 50:114; consent of instructor.

50:134(g). Theatre for Youth — 3 hrs.

Specific problems of producing theatre for children, including readings in children's literature, child psychology, and plays. Practical experience in improvised and scripted performances. Prerequisite: junior standing.

50:135(g). Creative Drama Practicum — 3 hrs.

Experience in learning to adapt materials for spontaneous drama and experiment with techniques of guidance in an actual classroom situation under the supervision of the classroom teacher and the instructor of the course. Prerequisites: 50:130 and junior standing.

50:136. Psychology of Speech Communication — 3 hrs.

Selected psychological views of speech communication. Topic emphasis based on professional interest of class. Prerequisite: junior standing.

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.

50:139. Principles of Discussion — 3 hrs.

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 II: Producing and Directing — 4 hrs.

Advanced theory and practice of producing and directing scripted and non-scripted television programming; examination of the problems of the director and the aesthetics of television; emphasis on applied media aesthetics. Prerequisite: 50:061.

50:142. Advanced Audio Production — 3 hrs.

Advanced audio production techniques characteristic of radio and sound studios; production techniques for program matter, including dramatic and music genre; application of aural aesthetics to audio projects. Prerequisites: 50:018; 50:062; 50:064.

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.

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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: Communications major, junior standing and/or 50:144.

50:146(g). Theatre for Children Tour — 3 hrs.

Specific problems of creating and performing a touring show for child audiences examined through practicum experience. Includes research, planning, rehearsal and performance, and evaluation. Prerequisite: junior standing or consent of instructor.

50:147(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.

50:150. Electronic News Gathering — 3 hrs.

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; 50:062; 50:066.

50:151. Theatre Design I — 3 hrs.

Analysis of selected scripts, design theory and design techniques for theatre and the allied performing arts; development of designs in one area: scenery, costumes or lighting. (One area is designated each semester the course is offered.) May be repeated for a maximum of 9 hours. Prerequisites: 50:021; 50:022; 50:045; 50:051; 50:053. Lab Fee.

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.

50:153. Television Criticism — 3 hrs.

Examination of television programming as an art form and as a vehicle for the dissemination of information. Prerequisites: 50:061; junior standing.

50:154. National Systems of Broadcasting — 3 hrs.

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. Prerequisites: 50:170; junior standing.

50:155. History of Broadcasting — 3 hrs.

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.

50:157(g). Stage Costume II — 3 hrs.

Pattern drafting techniques for theatrical costumes, and special construction problems. Discussion: 3 periods. Prerequisites: 50:045; junior standing; or consent of instructor.

50:158. Projects in Broadcasting — 1-6 hrs.

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.

50:15a. Voice Studio — 3 hrs.

Development of the actor's voice for performance situations. Prerequisite: 50:054.

50:160(g). Playwriting — 3 hrs.

Prerequisites: 50:022; consent of instructor; junior standing.

50:161. Radio News Reporting — 3 hrs.

Principles and practices of writing, editing and reporting radio news stories, newscasts and public affairs programs including features and editorials. Prerequisites: 50:062; 50:066; 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.

50:163. Business and Professional Oral Communication — 3 hrs.

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.

50:167(g). Theatre Design II — 3 hrs.

Advanced analysis of selected scripts, design theory and design techniques; focus is on creating unified production concepts as evidenced by development of designs in more than one area (scenery, lights, costumes) for portfolio presentation. Prerequisites: 50:151 (in at least 2 areas); junior standing or consent of instructor.

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.

50:169(g). Gender Issues in Communication — 3 hrs.

Examines the social construction of gender identities through verbal and non-verbal behaviors in daily interaction. Critical analysis of biological, sociological, and patriarchal explanations for presumed gender differences in communication. Prerequisite: junior standing.

50:16a(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.

50:16c. 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: 50:064; junior standing.

50:16d(g). Public Relations Writing — 3 hrs.

Conceptualization and multi-media adaptation of copy for public relations campaigns. Prerequisites: 50:064; 66:040; junior standing.

50:170. Broadcast Programming — 3 hrs.

Program scheduling and arrangement in television; organization of program elements in radio; informational programming responsibilities for both media; development of a philosophy concerning effective programming strategies. Prerequisites: 50:060; junior standing.

50:171(g). Broadcast Script Writing — 3 hrs.

Theory and practice of writing scripts for nonjournalistic programming in audio and video, including information, dramatic and variety formats. Prerequisites: 50:061; junior standing.

50:172. Broadcast Documentary — 3 hrs.

Form and content of broadcast documentaries through analysis of historical and contemporary examples. Prerequisites: 50:061; junior standing.

50:173. Sportscasting — 3 hrs.

Preparation, production, programming, and performance of sporting events; performance includes play-by-play and color for television and radio; students must be available to attend UNI and local high school sports events. Section 1 deals with autumn sports; section 2 deals with spring sports. Students may take sections 1 and 2, but not repeat the same section. Prerequisites: 50:062; junior standing.

50:174. Broadcast Law and Policy — 3 hrs.

Character of broadcasting regulation and policies controlling entry into broadcasting FCC objectives and policies, policies pertaining to cable television and new technologies, press freedom and press license, fairness issues, children's television, and public broadcasting. Prerequisites: 50:060; junior standing.

50:175. Current Issues in Broadcasting — 3 hrs.

Seminar in specialized areas of broadcasting; topics to be announced in semester Schedule of Classes. May be repeated for maximum of 6 hours credit. Prerequisites: 50:060; junior standing or consent of instructor.

50:176. Theatre in Education — 3 hrs.

Application of theatre performance and improvisation techniques to the teaching of a specific curricular topic intended for young audiences. Prerequisite: consent of instructor

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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). Public Relations 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 and finishing techniques. Discussion, 1 period; lab, 3 periods. Prerequisites: 50:051; 50:053; or consent of instructor.

50:181(g). Acting Styles — 3 hrs.

Application of techniques learned in Acting I and II including theoretical study of various styles of acting as well as extensive scene work. Discussion, 3 periods; lab, 3 periods. Prerequisites: junior standing; 50:021; 50:024; 50:080; and consent of instructor.

50:182. Stage Weapons and Fight Choreography — 3 hrs.

Basic skills of modern and historic styles of fencing, swordplay, and other modes of fighting, and application of these skills to the planning and safe execution of an effective and artistic stage fight. Prerequisite: junior standing.

50:183(g). Interviewing — 3 hrs.

The interviewer and interviewee functions in business and professional settings; excludes journalistic interviews. Prerequisite: junior standing.

50:184(g). Conference Techniques — 3 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 — 3 hrs.

Examination of negotiation as it affects individuals in the life experience, and techniques for development of bargaining abilities. Prerequisite: junior standing.

50:187. Contemporary Public Address — 3 hrs.

Critical study of subject with emphasis on important American statesmen after World War II.

50:188. Parliamentary Procedure — 2 hrs.

Study of the rules of order which govern the proceedings of organizations in a democratic society.

50:189(g). Readings in Theatre — 3 hrs.

Intensive investigation of a theatre style, form, period, or concept. May be repeated for a maximum of 6 hours. Prerequisites: consent of instructor; junior standing.

50:190(g). Theatre Graphics II — 3 hrs.

Advanced problems in drafting/graphic communications for theatre and the allied performing arts; includes work on specialized CAD software. Prerequisites: 50:051; 50:053; junior standing or consent of instructor.

50:191(g). Technical Theatre II — 3 hrs.

Advanced technique in theatre technology: a problem solving approach to the construction, rigging and shifting of complex scenic units culminating in an introduction to the basics of technical direction. Prerequisites: 50:051; 50:053; 50:151 (sets); and consent of instructor.

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 eight credit hours. Prerequisites: Consent of supervising 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. Prerequisites: Junior standing; consent of instructor 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. Prerequisites: Junior standing; consent of advisor and department head. May be repeated for a maximum of 8 hours.

50:198. Independent Study.

50:205. Interpersonal Communication — 3 hrs.

Synthesis of psychological, sociological, philosophical analysis of person-to-person communication.

50:225. Bibliography and Methods of Research — 3 hrs.

50:230. Psychology of Speech — 3 hrs.

The analysis of speech communication as a behavior phenomenon. Topic emphasis to be used on professional interest of class. Prerequisite: consent of instructor.

50:273. Projects in Speech — 1-3 hrs.

May be repeated for a total of 3 hours credit. Consent of departmental committee must be obtained before registration.

50:289. Seminar in Public Relations — 3 hrs.

Various topics will be offered with specific title to be announced in Schedule of Classes. May be repeated more than once provided it is on a different topic.

50:289. Seminar in Communication Education — 3 hrs.

Various topics will be offered with specific title to be announced in Schedule of Classes. May be repeated more than once provided it is on a different topic.

50:289. Seminar in Communication — 3 hrs.

Various topics will be offered with specific title to be announced in Schedule of Classes. May be repeated more than once provided it is on a different topic.

50:289. Seminar in Interpretation — 3 hrs.

Various topics will be offered with specific title to be announced in Schedule of Classes. May be repeated more than once provided it is on a different topic.

50:289. Seminar in Theatre — 3 hrs.

Various topics will be offered with specific title to be announced in Schedule of Classes. May be repeated more than once provided it is on a different topic.

50:299. Research.

51 Communicative Disorders

51:100. Introduction to Pathology of Speech-Language and Hearing — 3 hrs.

51:101(g). The Communicatively Handicapped Individual in Society — 3 hrs.

The role of the classroom teacher in dealing with speech and hearing problems. Information on identification, causes, personality problems, referrals, and remediation procedures. Not to be taken by students majoring in Speech-Language Pathology. Prerequisite: junior standing or consent of instructor.

51:104(g). Computer Methods in Communicative Disorders — 1 hr.

Fundamental applications and techniques of computer applications in the area of communicative disorders. Includes applications related to administrative, clinical, and research activities within the field. Prerequisite: declared major.

51:106. Language Acquisition in Children — 3 hrs.

Study of the acquisition of phonological, semantic, syntactic, and pragmatic systems as these interface with brain maturation and motor, cognitive, and social development. Biological and social/interactional factors examined from variety of perspectives, stressing "applied" orientation. Prerequisite: 51:100. Corequisite: 51:107.

51:107. Language Analysis Lab — 1 hr.

Provides experience in applications of language sample analysis procedures for children at different levels of development. Corequisite: 51:106.

51:111. Phonetics in Speech Pathology — 3 hrs.

Proficiency in use of the International Phonetic Alphabet with emphasis on the physiological and linguistic aspects of speech sound production.

51:125. Disorders of Speech Sounds — 3 hrs.

Study of disordered phonological/articulatory systems; exploration of assessment and intervention principles and practices. Prerequisites: 51:106; 51:111; or consent of instructor.

51:127(g). Disorders of Language — 3 hrs.

Assessment and intervention principles and techniques for preschool and school-aged, language-disordered children. Examination of medical, psychological, and linguistic orientations. Prerequisites: 51:106; junior standing or consent of instructor.

51 Communicative Disorders

51:141(g). 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. (Formerly 51:244.)

51:142. Anatomy and Physiology of Speaking Mechanism — 3 hrs.

Introduction to functional anatomy and physiology of the speech mechanism; theories and dynamics of speech perception and production. Prerequisite: 51:100.

51:144(g). Neurological Foundation of Communication — 2 hrs.

Study of the neuroanatomical and neurophysiological bases of speech production. Prerequisites: 51:142 or consent of instructor.

51:147(g). Introduction to Fluency — 2 hrs.

Study of etiology, diagnosis, and management of fluency disorders. Prerequisites: 51:106; 51:142; junior standing or consent of instructor.

51:150. Clinical Processes I, II, III — 1 hr.

Introduction to role of speech-language pathologist as clinician; emphasis on analysis and observation of remediation, culminating in a semester of participation as an assistant in the Speech Clinic. Course divided into sequential, one-semester sections of 1 hour credit for each section (must be taken in sequence): Sec. I, Analysis; Sec. II, Observation; Sec. III, Participation (Sec. III credit/no credit only). Prerequisite: 51:100 or consent of instructor.

51:155. Clinical Practices — 1-2 hrs.

Clinical experience in evaluation and remediation of language, articulation, and voice disorders as well as experience in testing of hearing. Must be repeated for a total of 4 hours for communicative disorders majors and 2 hours minimum for students majoring in audiology at graduate level. Prerequisites: 51:125; 51:127; or consent of instructor.

51:156(g). Clinical Examination — 3 hrs.

Theoretical and practical aspects of the evaluation process. Prerequisites: 51:111; junior standing or consent of instructor.

51:157(g). Introduction to Evaluation and Diagnosis - 2 hrs.

Introductory clinical experience in interviewing techniques; application of formal and informal evaluation instruments and techniques; formulation of diagnoses and prognoses; report writing, includes lab. experience. Practicum arranged. Prerequisites: 51:156; junior standing or consent of instructor.

51:160(g). Hearing Science — 3 hrs.

Physical concepts and acoustics relating to propagation and measurement of sound. Anatomy and physiology of the ear including neurophysiology of the peripheral and central auditory system, and psychoacoustics. Prerequisites: 51:100; 51:142; junior standing or consent of instructor.

51:162(g). Acoustic Phonetics — 3 hrs.

The study of the sound analysis techniques used in the diagnosis of and research into the disorders of communication. Prerequisite: 51:160 or consent of instructor.

51:165(g). Introduction to Audiology — 3 hrs.

Basic hearing science, types of hearing loss, and audiometric measurement. Prerequisites: 51:142; 51:160; junior standing or consent of instructor.

51:170(g). Manual Communication — 3 hrs.

Basic principles and instruction in the use of manual communication; survey of various manually coded English systems and American Sign Language.

51:173(g). Advanced Manual Communication — 2 hrs.

Designed for students with basic communication skills in both signing and fingerspelling. Emphasis will be on conversational signing in everyday communication situations. Prerequisites: 51:170; junior standing or consent of instructor.

51:174(g). Aural Rehabilitation — 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. Prerequisites: 51:160; 51:165; junior standing or consent of instructor.

51:180(g). Current Problems in Speech-Language Pathology and Audiology — 1-2 hrs.

Major issues confronting clinicians, researchers, and the profession. Topics to be determined by instructors. May be repeated as section topics change. Prerequisite: senior, graduate standing or consent of instructor.

51:195(g). Organization and Management of Clinical Programs — 2 hrs.

The planning and implementation of communicative disorders and audiology programs in various clinical settings. Prerequisites: communicative disorders or audiology major; junior standing or consent of instructor.

51:197(g). Honors in Communicative Disorders — 2-3 hrs.

Development and implementation of an approved research project in some area of communicative disorders. Prerequisite: consent of instructor.

51:210. Physiologic Phonetics — 2 hrs.

A hands-on approach to the investigation of physiologic aspects of speech. Focus of these experiences will be on state of the art physiologic analysis of communication. Prerequisite: 51:162 or consent of instructor.

51:220. Cleft Palate — 2 hrs.

Etiology, nature, habilitation, and associated problems resulting from facial clefts and other structural facial deviations. Evaluative and therapeutic principles and practices. Includes laboratory. Prerequisite: 51:125 or consent of instructor.

51:230. Language Training Strategies — 3 hrs.

Review of current literature materials for language-disordered children. Requires active participation for demonstrations and presentations of articles and materials. Prerequisites: 51:106; 51:127; or consent of instructor.

51:232. 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 or consent of instructor. (Formerly 51:181g.)

51:240. Aphasia — 2 hrs.

Diagnosis and remediation of aphasia in adults. Prerequisite: 51:127 or consent of instructor.

51:241. Motor Speech Disorders — 2 hrs.

Neurophysiological bases, differential diagnosis, and clinical management of motor speech disorders in children and adults. Prerequisite: 51:127 or consent of instructor.

51:247. Advanced Fluency — 2 hrs.

Study of etiology, nature, and management of fluency disorders in adults. Prerequisite: 51:147 or consent of instructor. (Formerly 51:148g.)

51:250. Clinical Phonology — 2 hrs.

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 speech, language, and/or hearing problems at an advanced level of preparation and responsibility. Must be taken for a minimum of four (4) academic terms in the graduate program. Prerequisites: 51:155 or consent of instructor; individuals must be accepted graduate students in the majors of Speech-Language Pathology or Audiology.

51:257. Internship in Clinical Settings — 4-16 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.

51:265. Differential I — 2 hrs.

Principles and application of auditory testing to identify hearing disorders. Prerequisite: 51:165.

51:270. Anatomy and Physiology of the Auditory Mechanism — 3 hrs.

Functional anatomy, physiology, audiology, neurology of the hearing mechanisms. Prerequisite: 51:165 or consent of instructor.

51:271. Differential II — 2 hrs.

Application of pure-tone and speech audiometry to complex auditory problems and differential diagnostic questions. Prerequisite: 51:265.

51:272. Hearing Aids — 2 hrs.

Physical characteristics and clinical aspects of auditory amplifiers for the hearing impaired. Prerequisite: 51:265.

51:273. Evaluation/Management of Children's Hearing Problems — 2 hrs.

Development of auditory perception, auditory deprivation, auditory tests and techniques with the neonate, infant, and child. Prerequisite: 51:265.

51:274. Community and Industrial Hearing Conservation — 2 hrs.

Study of the audiologist's role in managing hearing conservation programs in the community, industry, and public school.

51:277. Hearing Aids II — 2 hrs.

Clinical application of hearing aid technology. Prerequisite: 51:272.

51:278. Hearing Science II — 2 hrs.

Advanced concepts in psychoacoustics and speech perception. Prerequisite: 51:160.

51 Communicative Disorders/52 Music 53 Music Organizations and Ensemble/54 Music, Applied

51:279. Evaluation/Management of Adult Hearing Problems — 2 hrs.
Techniques and procedures in the rehabilitation of adults with hearing disorders. Prerequisites: 51:165 and 51:174.

51:281. Theory and Practice in Audiology — 1 hr.
Discussion of professional issues in clinical practice.

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.

51:285. Individual Readings — 1-2 hrs.
Project must be approved before beginning of semester in which work is to be done. May be repeated. Prerequisite: consent of instructor.

51:289. Seminar in Audiology — 2 hrs.
Seminars in special topics to be announced in the Schedule of Classes. Prerequisite for each scheduled topic will be consent of instructor. May be taken for a maximum of 6 hours as long as no topic is repeated.

51:289. Seminar in Speech-Language Pathology — 2 hrs.
Seminars in special topics to be announced in the Schedule of Classes. Prerequisite for each scheduled topic will be consent of advisor. No limit on number of times repeated as long as no topic is repeated.

51:290. Advanced Diagnostics — 2 hrs.
Advanced techniques in diagnostics, incorporating a multi-disciplinary approach. Opportunities provided to observe and administer appropriate evaluative materials. Prerequisite: consent of advisor.

51:291. Disorders of Voice — 2 hrs.
In-depth study of the etiology, diagnosis, and management of voice disorders. Prerequisites: 51:142; 51:144; or consent of instructor.

51:293. Research Methods in Speech-Language Pathology and Audiology — 3 hrs.
Introduction to methodology, various designs, and report preparation for research. Requires participation in research project. Prerequisite: an approved course in statistics.

51:296. Clinical Supervision in Speech-Language Pathology — 1-2 hrs.
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: consent of instructor and department head.

52 Music

52:020. Our Musical Heritage — 3 hrs.
Exploration of music within the context of evolving Western culture. Music fundamentals and vocabulary. Repertories from the medieval world through the post-Romantic era.

52:030. Music of Our Time — 3 hrs.
Major trends in traditional and experimental art music, American popular music (from ragtime to rock), ca. 1900 to the present.

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.

52:299. 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, UNI 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:

Major (for Performance majors only) — 3 semester hours

Concentration (all freshmen during Core requirements and all upperclass and graduate music majors except Performance majors) — 2 semester hours

Secondary — 1 semester hour

Two half-hour lessons each week per semester, are required for both *major* and *concentration* applied students. Practice and performance demands for the *major* are more rigorous than for the *concentration* student.

The amount of credit for Applied Music to be carried will be determined at the time of registration. All students in the freshman music core will enroll for *concentration* applied, 2 semester hours of credit each semester. Students approved for the Performance major under the Bachelor of Music Degree will register for 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 semesters in residence. Adjustments in credit hour registration for Applied Music will be made during the summer session.

The appropriate applied area faculty will determine the level of the student's qualifications (54:0xx, 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.

54:Nxx. Applied Music for the Non-Music Major.

Private applied music instruction for students not pursuing a degree program in music. Emphasis on basic skills oriented toward immediate performance needs. Credit normally will not be applied toward music major or minor requirements.

54:030, 54:130(g), 54:230. 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 Music, Applied/ 56 Music Techniques 57 Music Education and Methods

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:P46. 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

56:015. Basic Recording Techniques — 2 hrs.

Tape recording: theory and practical application. Includes live recording, mixing, editing, overdubbing, sound reinforcement, and tape recorder maintenance. Prerequisite: consent of instructor.

56:017. Conducting I—Instrumental — 2 hrs.

56:018. Conducting I—Choral — 2 hrs.

56:021. Conducting II—Instrumental — 3 hrs.

Advanced training in instrumental conducting with emphasis on orchestral and band scores and literature for small and large ensembles. Required of all instrumental music majors on teaching program. Prerequisites: 56:017; 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; 58:013.

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.

56:045, 56:145(g). Vocal Coaching — 1 hr.

May be repeated for credit. (56:045 for freshmen/sophomores; 56:145(g) for juniors/seniors/graduates.) (Formerly 56:035.)

56:050, 56:150(g). Music Theatre — 1-2 hrs.

Techniques of the American music stage. Includes work in movement, styles and history. Preparation of a major music theatre production and/or scenes from musicals or operettas. May be repeated for credit. (56:050 for freshmen/sophomores; 56:150(g) for juniors/seniors/graduates.)

56:051, 56:151(g). Opera Theatre — 1-2 hrs.

Techniques of opera performance. Emphasis on area, 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. (56:051 for freshmen/sophomores; 56:151(g) for juniors/seniors/graduates.)

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. (56:052 for freshmen/sophomores; 56:152(g) for juniors/seniors/graduates.)

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. Units on analog and digital synthesizers, sound re-inforcement, signal processing. Prerequisite: 56:015; junior standing or consent of instructor.

56:121(g). Conducting III—Instrumental — 2 hrs.

Techniques of conducting band and orchestral works; score 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 experience includes 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.

56:145(g). Vocal Coaching — 1 hr. (See 56:045.)

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 UNI 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.

56:250. Projects in Music Techniques — 1-3 hrs.

57 Music Education and Methods

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.

57:050. Introduction to Music Education — 2 hrs.

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.

57:138(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.

57:141. Elementary/General Music Methods — 3 hrs.

Objectives and materials for and methods of teaching general music in public schools. Emphasis on contemporary approaches: Orff, Kodaly, Dalcroze, Integrated Arts, and other methodologies. Prerequisite: 57:050.

57:143. 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 (singing, playing instruments, composing) within various environments (on playground, in a music corner, in a sound-box).

57:144. 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.

57:148(g). Piano Methods — 2 hrs.

Procedures and techniques of piano instruction, especially for the beginning and intermediate student. These include the study and techniques of piano playing, the literature of the instrument, and the styles of the various periods. Prerequisite: junior standing.

57:155. Instrumental Methods and Materials — 3 hrs.

Teaching of instrumental music in the elementary and secondary schools. Organization and administration of program. Emphasis on band, orchestra, marching band, and jazz ensemble rehearsal techniques and materials. Evaluation techniques appropriate to the school music setting.

57:165. Choral Methods and Materials — 3 hrs.

Organization and development of public school choral organizations. Emphasis on rehearsal techniques, vocal production and blend, and materials suitable for choral ensembles. 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.

57:175(g). Orff-Schulwerk, Level I — 3 hrs.

This course is designed to meet American Orff-Schulwerk Association standards. Daily sessions in ensemble, pedagogy, soprano recorder technique, and movement are included. Special topics will consist of sessions on the child voice, the boy's changing voice, and American folk dance. Prerequisites: 57:141; junior standing or consent of instructor.

57:176(g). Orff-Schulwerk, Level II — 3 hrs.

This course is designed to meet American Orff-Schulwerk standards for Level II training. Daily sessions in ensemble, pedagogy, alto recorder techniques, and movement are included. Special topics will consist of sessions on elementary choir methods and materials, music in early childhood, and music for special learners. Prerequisite: 57:175.

57:177(g). Orff-Schulwerk, Level III — 3 hrs.

This course meets American Orff-Schulwerk Association standards for Level III teacher training. Daily sessions in ensemble, pedagogy, recorder consort, and movement. Each student will teach a representative music lesson in class. Special topics will consist of program evaluation, performing for the community, and American folk dance. Prerequisite: 57:176.

57:197(g). Instrumental Upkeep and Repair — 2 hrs.

A laboratory course in which practical projects are undertaken. Offered for instrumental majors. To accompany student teaching. Prerequisites: 57:010; junior standing or consent of instructor.

57:221. Research Methodology in Music Education — 2 hrs.

Introduction to various research methodologies used in music education. Required of graduate music education majors.

57:230. Foundations of Music Education — 3 hrs.

Examination of the foundations and underlying principles of music education.

57:245. Developments and Trends in Music Education — 2 hrs.

Evolving issues important to the music educator. May be repeated for credit. Prerequisite: 57:050; junior standing or consent of instructor.

57:250. Projects in Music Education — 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.

58 Music Theory

58:010. Introduction to Music Theory — 2 hrs.

Basic skills and vocabulary. Designed for non-music majors with limited background in music fundamentals or as preparation for music major theory courses. Emphasis on notation, key/time signatures, rhythm, and aural training.

58:011. Theory I — 2 hrs.

Fundamentals of basic musicianship; scales, intervals, chord forms; analysis and writing involving diatonic harmony. Creative use of materials. Corequisites: 58:015; 58:025.

58:012. Theory II — 2 hrs.

Continuation of 58:011. Corequisites: 58:016; 58:026.

58:013. Theory III — 2 hrs.

Materials of musicianship; emphasis on the so-called period of "common practice." Corequisites: 58:017; 58:027.

58:014. Theory IV — 2 hrs.

Continuation of 58:013 with emphasis on Late Romantic and Contemporary eras. Corequisites: 58:018; 58:028.

58:015. Aural Training I — 1 hr.

Corequisites: 58:011; 58:025.

58:016. Aural Training II — 1 hr.

Corequisites: 58:012; 58:026.

58:017. Aural Training III — 1 hr.

Corequisites: 58:013; 58:027.

58:018. Aural Training IV — 1 hr.

Corequisites: 58:014; 58:028.

58:022. Composition Class — 3 hrs.

Creative work in the primary forms. Prerequisite: 58:012 or consent of instructor. (For applied composition, see 54:054.)

58:025. Sight-Singing I — 1 hr.

Corequisites: 58:011; 58:015.

58:026. Sight-Singing II — 1 hr.

Corequisites: 58:012; 58:016.

58:027. Sight-Singing III — 1 hr.

Corequisites: 58:013; 58:017.

58:028. Sight-Singing IV — 1 hr.

Corequisites: 58:014; 58:018.

58:110. Analysis of Music — 2 hrs.

Study of forms and procedures prevalent in the works of major composers from the 16th century to the present. Prerequisite: 58:013.

58:120(g). 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.

Contrapuntal 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). Arranging for Ensembles — 2 hrs.

Designed for the high school music director. Areas available: choral; band/instrumental ensemble. Prerequisites: 58:013; junior standing.

58:127(g). Jazz Arranging I — 2 hrs.

Basic skills for jazz composer/arranger. Emphasis on instrument ranges and transposition, chord terminology, voicing and doubling principles, harmonization and chord substitution, form and score organization. Prerequisites: 58:012; junior standing or consent of instructor.

58:128(g). Jazz Arranging II — 2 hrs.

Continuation of 58:127. Emphasis on contemporary scoring devices, augmented instrumentation (including strings), contrapuntal and formal problems, score study and analysis. Prerequisites: 58:127; junior standing or consent of instructor.

58:180(g). Theory Survey for Graduates — 2 hrs.

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. Will not count toward minimum degree requirements.

58:210. Styles I: Major Composers and Their Eras — 2 hrs.

Application of analytic techniques to music from plainsong through mid-Baroque (Corelli). Emphasis on era and composer style delineation. Prerequisite: 58:180 or passing score on Graduate Theory Diagnostic Examination.

58:211. Styles II: 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.

58:250. Projects in Music Theory — 1-3 hrs.

59 Music Literature

- 59:005. Introduction to Music Literature — 2 hrs.**
Exploration of basic musical concepts and repertoires in Western Civilization. Music listening techniques.
- 59:010. History of Music I — 3 hrs.**
Survey of musical trends from all eras. Early Christian era through Bach (1750). Prerequisite: 59:005.
- 59:011. History of Music II — 3 hrs.**
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.
- 59:112(g). Music Literature—Classic — 3 hrs.**
Prerequisites: 59:010 and 59:011; junior standing.
- 59:114(g). Music Literature—Romantic — 3 hrs.**
Prerequisites: 59:010; 59:011.
- 59:115(g). Music Literature—20th Century — 3 hrs.**
Prerequisites: 59:010 and 59:011; junior standing.
- 59:120(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.
- 59:129(g). History of American Music Theatre — 3 hrs.**
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: 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. Prerequisites: 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.
- 59:180(g). Music Literature Survey for Graduates — 1-2 hrs.**
Review of the various style periods, media and forms in music history of our culture. Required of all graduate students who do not demonstrate adequate proficiency as a result of the Graduate Music History Diagnostic Examination. May be repeated for credit. Will not count toward minimum degree requirements.
- 59:221. 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.
- 59:250. Projects in Music History and Literature — 1-3 hrs.**
- 59:285. Readings in Music History — 1-3 hrs.**
Prerequisite: consent of Graduate Coordinator in Music.

59:289. Seminar in Music History — 3 hrs.

Musico logical research into the various areas of music. May satisfy departmental requirement of 59:221.

60 Art

60:002. Visual Inventions — 3 hrs.

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.

60:004. Visual Perceptions — 3 hrs.

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 topography 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.

An introduction to the use of photography as a means of creative expression. Students learn basic camera operations, black and white processing and printing, and presentation methods. Assignments are directed toward understanding photographic method and content. Prerequisite (for art majors and minors): Foundations Program.

60:033. Printmaking I: Etching and Woodcut — 3 hrs.

Beginning experiences in making intaglio and woodcut prints. Prerequisite (for art majors and minors): Foundations Program.

60:035. Printmaking I: Lithography and Screenprint — 3 hrs.

Beginning experience in making lithographic and screenprints. Prerequisite (for art majors and minors): Foundations Program.

60:037. Sculpture I — 3 hrs.

An introduction to the essential methods and materials of sculpture, including modeling, carving, casting and metal and wood fabrication techniques. 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.

Ceramics 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. Prerequisite: (for art majors and minors): Foundations 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.

60:108. Principles and Techniques of Arts Management I — 3 hrs.

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.

60:109. Principles and Techniques of Arts Management II — 3 hrs.

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.

60:110. Art Gallery and Museum Management — 3 hrs.

The particular management problems of art museum operations, including the role of the museum institution as a public trust, will be explored. This includes object management, care and policy; exhibition curatorship and design; museum educational components; accreditation procedures and professional standards. Also an understanding of the history of the development of museums will be explored.

60:111. 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.

60:124. Jewelry II — 3 hrs.

Continuation of 60:074 with greater emphasis upon self-direction. Contemporary jewelry/metalwork history, electro-forming, anodization of aluminum and advanced stone setting. Prerequisite: 60:074.

60:125. Graphic Design II — 3 hrs.

Exploration of approaches to illustration and the integration of type and graphic images. Includes class problems as well as design projects for the university and community. Prerequisite: 60:025.

60:126. Graphic Design III — 3 hrs.

Advanced problems in graphic design. Design systems, corporate identity packaging and signage. Prerequisite: 60:125.

60:127. Publication Design — 3 hrs.

Lecture-studio course on layout and typography of various types of publications; includes content research and analysis, display, text type and illustration trends, design formats, and specialized publications and audiences. Prerequisite: 60:125.

60:128. Graphic Design-Illustration — 3 hrs.

Basic media, techniques, paper selection, and tools for execution of solutions ranging from black and white line to full-color, continuous tone in 2D and 3D form. Specialized commercial illustration problems imposed by mechanical production requirements considered. Historical overview of styles. Prerequisite: 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.

60:131. Creative Photography III — 3 hrs.

Extension of photography as creative image making; in-depth look at processes, criticism, and student's own ideas and directions in photography. Prerequisite: 60:130.

60:132. Color Photography — 3 hrs.

Introduction to most commonly used color photographic processes including transparency film, negative films, negative and reversal printing papers. Prerequisite: 60:130 or equivalent.

60:134. Printmaking II — 3 hrs.

Intermediate work in printmaking. Introduction to advanced processes: color etching and lithography, aluminum plate lithography, viscosity etching, steel plate etching, advanced woodcut and screen printing. Greater emphasis on self-direction. Prerequisite: 60:033 or 60:035.

60:135. Papermaking III — 3 hrs.

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. Sculpture II — 3 hrs.

Contemporary issues in sculpture are explored through materials and processes selected by the individual. Emphasis is on understanding the inter-relationships between specific concepts, forms and materials. Prerequisite: 60:037.

60:138. Research Methods and Writing in Art History — 2 hrs.

Introduction to research methods and writing in Art History. Completion of Foundations Program. This course cannot be used to satisfy art history requirements in the studio or art education emphases.

60:139(g). Ancient Near Eastern Art — 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). Ancient Egyptian Art — 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.

60:141(g). Art History — 3 hrs.

60:141(g)-01 Medieval Art. An examination of various developments in Europe and Western Asia from Late Roman through Gothic, primarily through the art and architecture. Prerequisites: Junior standing or (for art majors and minors) 60:040 and 60:041.

60:141(g)-02 Northern Renaissance Art. An examination of Northern European art from the 14th to the 16th centuries. Prerequisites: Junior standing or (for art majors and minors) 60:040 and 60:041.

60:141(g)-03 Indian Art. An examination of the art and culture of India from the Indus Valley Civilization through the Mughal Dynasty. Prerequisites: Junior standing or (for art majors and minors) 60:040 and 60:041.

60:141(g)-04 Japanese Art. An examination of the art and culture of Japan from the Neolithic through the Tokugawa periods. Prerequisites: Junior standing or (for art majors and minors) 60:040 and 60:041.

60:141(g)-05 Ancient Greek Art. An examination of various developments in the Greek world from the Bronze Age through the Hellenistic Period, primarily through the art and architecture. Prerequisites: Junior standing or (for art majors and minors) 60:040 and 60:041.

60:141(g)-06 Ancient Roman Art. An examination of various developments in the Roman world, from Etruscan through Roman Imperial, primarily through the art and architecture. Prerequisites: Junior standing or (for art majors and minors) 60:040 and 60:041.

60:141(g)-07 Chinese Art. An examination of the art and culture of China from the Neolithic period through the Qing Dynasty. Prerequisites: Junior standing or (for art majors and minors) 60:040 and 60:041.

60 Art/62 English Language and Literature

- 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.
- 60:170. Jewelry/Metals III — 3 hrs.**
Continuation of 60:124 with greater emphasis on self-direction. Techniques covered include: raising, lathe usage, metal inlay, engraving, mokume, granulation and leaf metal application. Prerequisite: 60:124.
- 60:172. Ceramics III — 3 hrs.**
Prerequisite: 60:051.
- 60:174. Printmaking III — 3 hrs.**
Advanced work in printmaking. Etching, screen printing, woodcut, litho and related processes. Students work in depth in processes they select to explore. Emphasis is on the development of individual interest and direction. Prerequisite: 60:134.
- 60:175. Undergraduate Studio — 1-6 hrs.**
Investigation of personal visual concepts and techniques in a given studio area for qualified students who demonstrate intensive involvement and seek professional competency. Individual instruction. Sections: 1. Ceramics; 2. Drawing; 3. Graphic Design; 4. Metalwork; 5. Painting; 6. Papermaking; 7. Photography; 8. Printmaking; 9. Sculpture; 10. Watercolor. Prerequisite: 9 hours in studio area chosen. Credit to be determined by consent of instructor at time of registration. May be repeated for credit.
- 60:177. Sculpture III — 3 hrs.**
A focused exploration of concepts and media which reflect the interests of the student. Emphasis is on developing a personal aesthetic and a conceptual and critical base for continued work. Prerequisite: 60:137.
- 60:180. Painting III — 3 hrs.**
Prerequisite: 60:081.
- 60:181. Watercolor — 3 hrs.**
Exploration of watercolor medium and related water-base media. Prerequisite: 60:081.
- 60:189. B.F.A. Exhibition — no credit.**
- 60:191. Art History Seminar — 3 hrs.**
Focused investigation on topic or topics related to a specific area or time covered in general art history courses. Prerequisites: Students must have completed Foundations Program, at least three 100-level art history courses, including the one pertinent to the seminar, and consent of the instructor. For the non-art major, junior standing, completion of 100-level courses in an area of study pertinent/related to the seminar, and consent of the instructor.
- 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: (for art majors and minors): Foundations Program.
- 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.
- 60:196. B.F.A. Project I — 3 hrs.**
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.
- 60:197. B.F.A. Project II — 3 hrs.**
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.**
- 60:275. Graduate Studio.**
Investigation of personal visual concepts and techniques in a given studio area for qualified students who demonstrate intensive involvement and who seek professional competency. Individual instruction. Credit to be determined at time of registration. May be repeated for credit. 1. Ceramics; 2. Drawing; 3. Graphic Design; 4. Metalwork; 5. Painting; 6. Photography; 7. Printmaking; 8. Sculpture. Prerequisite: consent of Chairperson, Graduate Studies in Art.
- 60:280. Seminar: Critique and Analysis — 2 hrs.**
Analysis of concepts, forms and techniques encountered in own creative studio work and work of others. Investigation of individually selected concepts and materials. Examines role of professional artist and public.
- 60:293. Research in Art History — 1-3 hrs.**
May be repeated for credit. Prerequisite: 6 hours in graduate-level art history.
- 60:295. Seminar in Teaching Art — 3 hrs.**
Specific art education relating to public schools with emphasis upon continuity of art activity. Satisfies the special methods elective for the professional core.
- 60:296. The Supervision of Art — 3 hrs.**
Teaching problems and practices relating to the curriculum and the supervision of art.
- 60:297. Practicum.**
- 60:299. Research.**

62 English Language and Literature

- 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 UNI English admissions requirement; successful completion of this course satisfies the requirement. Offered on an ungraded basis; meets three hours a week.
- 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.
- 62:015. Expository Writing — 3 hrs.**
Emphasis on using sources; exploring and communicating ideas in writing addressed to various audiences and purposes. Prerequisite: 62:005.
- 62:020. Science Fiction — 3 hrs.**
Development of modern science fiction. Current trends; parallels and contrasts between science fiction and "literary" fiction. Prerequisite: 62:005.
- 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. No credit if prior credit in 62:034.
- 62:034. Critical Writing About Literature — 3 hrs.**
Study of the techniques of various literary forms including poetry, drama and fiction. Attention to the processes and purposes of critical and scholarly writing and to documentation. Helps fulfill university writing requirement for English Department majors. Prerequisite: 62:005.

62:035. Introduction to Film — 3 hrs.

An examination at an introductory level of four film genres: narrative, documentary, animated, experimental; preparation for further work, either individually or academically. Prerequisite: 62:005.

62:042. Tradition of British Literature to 1800 — 3 hrs.

Major trends and masterpieces from Medieval, Renaissance, and 18th Century periods: 700-1800. Prerequisite: 62:005.

62:043. Tradition of British Literature since 1800 — 3 hrs.

Major trends and masterpieces from the Romantic, Victorian, and Modern periods: 1800 to present. Prerequisite: 62:005.

62:044. Popular Literature: _____ — 3 hrs.

Offered on diverse topics (e.g., mystery and crime fiction, the romance, the western) to be announced in Schedule of Classes. May be repeated for credit only by taking different topics. Prerequisite: 62:005.

62:048. Major British Writers — 3 hrs.

Selected works — including poetry, drama, and prose fiction and non-fiction — in the literary tradition of England and the British Isles from the Medieval Period to the Twentieth Century. Prerequisite or corequisite: 62:034.

62:051. Tradition of 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: 62:005.

62:052. Tradition of American Literature since 1866 — 3 hrs.

Broad trends and important writers in the American Literary tradition from the Romantic period to the present. Prerequisite: 62:005.

62:053. Major American Writers — 3 hrs.

Selected works — including poetry, drama, and prose fiction and non-fiction — in the American literary tradition from colonial times to the present. Prerequisite or corequisite: 62:034.

62:055. Native American and Chicano Literature — 3 hrs.

Introductory study of selected American Indian and Chicano literature in a variety of forms: fiction, poetry, drama, myth, and legend. Prerequisite: 62:005.

62:057. African-American Literature — 3 hrs.

A study of Black writers in America. Prerequisite: 62:005.

62:060. Tradition of European Literature to 1650 — 3 hrs.

Masterpieces of Western literature from the beginnings to 1650. Prerequisite: 62:005.

62:061. Tradition of European Literature since 1650 — 3 hrs.

Masterpieces of Western literature from 1650 to present. Prerequisite: 62:005.

62:070. Creative Writing — 3 hrs.

Introduction to the writing of fiction or poetry; emphasis is announced in Schedule of Classes. May be repeated for credit by taking different emphases.

62:103. The Personal Essay — 3 hrs.

Writing various types of essays (e.g., narrative, descriptive, expository, persuasive); attention to stylistic questions and possibilities. Prerequisites: pass on Writing Competency Examination or 62:005 and junior standing or consent of instructor.

62:104. Argument and Persuasion — 3 hrs.

Writing on controversial issues; emphasis on development of evidence and study of audience psychology. Prerequisites: pass on Writing Competency Examination or 62:005 and junior standing or consent of instructor.

62:105(g). Technical 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 European drama; may include drama from other cultures. Prerequisite: 62:034 or junior standing or consent of instructor.

62:116(g). English Renaissance — 3 hrs.

Non-dramatic literature of the English Renaissance, 1485-1660. 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.

62:119(g). British Victorian Writers — 3 hrs.

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.

62:120(g). 20th Century British Novel — 3 hrs.

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.

62:123(g). American Realism and Naturalism to WWI — 3 hrs.

Literary selections 1870 to World War I; emphasis on fiction. Prerequisite: 62:034 or junior standing or consent of instructor.

62:124(g). 20th Century American Novel — 3 hrs.

Prerequisite: 62:034 or junior standing or consent of instructor.

62:126(g). Short Fiction — 3 hrs.

Prerequisite: 62:034 or junior standing or consent of instructor.

62:128(g). Images of Women in Literature — 3 hrs.

Images, symbols, and myths of women in literature; feminist criticism. Prerequisite: 62:034 or junior standing or consent of instructor.

62:134(g). Modern British and American Poetry — 3 hrs.

Since 1914. Prerequisite: 62:034 or junior standing or consent of instructor.

62:144(g). Chaucer — 3 hrs.

The poetry of Chaucer; may include other medieval writers. Prerequisite: 62:034 or junior standing or consent of instructor.

62:147(g). Milton — 3 hrs.

Milton's major English poetry and prose. Prerequisite: 62:034 or junior standing or consent of instructor.

62:148(g). Shakespeare — 3 hrs.

Prerequisite: 62:034 or junior standing or consent of instructor.

62:153(g). Major American Poets to 1900 — 3 hrs.

Prerequisite: 62:034 or junior standing or consent of instructor.

62:155(g). European Novel — 3 hrs.

Major works of prose fiction by writers such as Cervantes, Stendhal, Flaubert, Dostoevsky, Tolstoy, and Mann (in English translation). Prerequisite: 62:034 or junior standing or consent of instructor.

62:156(g). British Novel to 1900 — 3 hrs.

Major fiction writers such as Fielding, Sterne, Austen, Dickens, Thackeray, the Brontës, George Eliot, and Hardy. 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.

62:163(g). Theory and Practice of Writing — 3 hrs.

Detailed examination and application of major theories of writing: formal, cognitive, social, expressive, rhetorical, contextual. Prerequisites: 62:015 and 62:103 or 62:104 or 62:105.

62:165(g). Literature for Young Adults — 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.

Preparation for teaching secondary English (7-12); includes teaching of literature and media, reading and writing, speaking and listening; also attention to curriculum design, language development and use, and evaluation. Prerequisites: 20:018; 20:040; 25:050 (Level II); junior standing or consent of instructor.

62 English Language and Literature/ 63 Linguistics

- 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. Corequisite: 28:138.
- 62:193(g). The Teaching of Writing — 3 hrs.**
Theory, research, and practice in teaching the composing, revising, and editing of written discourse for various audiences and purposes; also attention to development of writing and language abilities, course design, and implementation and evaluation strategies. Prerequisites: 62:005 and junior standing or consent of instructor.
- 62:194. Practicum: Tutoring Writing — 3 hrs.**
Training in the processes of writing and techniques of tutoring writing; application of training to tutoring students in writing skills and writing projects. Prerequisites: 62:005, sophomore standing; consent of instructor.
- 62:198. Independent Study.**
- 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.
- 62:221. English Renaissance Literature — 3 hrs.**
(1485-1660).
- 62:223. Restoration and 18th Century English Literature — 3 hrs.**
(1660-1798).
- 62:225. 19th Century English Literature — 3 hrs.**
Romantic or Victorian (1798-1900).
- 62:226. Modern English Literature — 3 hrs.**
(1900-1945).
- 62:231. American Romantic Literature — 3 hrs.**
(1800-1870).
- 62:232. American Realistic and Naturalistic Literature — 3 hrs.**
(1870-1912).
- 62:234. Modern American Literature — 3 hrs.**
(1912-1945).
- 62:260. Contemporary Literature — 3 hrs.**
Literature from 1945 to the present; may include poetry, drama, and/or fiction.
- 62:264. European Literature — 3 hrs.**
- 62:284. Seminar in Literature — 3 hrs.**
A selected generic, thematic, or critical topic or a specific writer or writers; topic to be announced in Schedule of Classes. May be repeated for credit.
- 62:291. Seminar in the Teaching of English — 3 hrs.**
- 62:292. Teaching English in the Community College — 3 hrs.**
Curriculum and instructional strategies suitable for the community college in meeting the needs of its diverse population.
- 62:297. Practicum.**
Graduate-level student teaching. See p. 88. Prerequisite: consent of instructor.
- 62:299. Research.**

63 Linguistics

- 63:125(g). Introduction to Linguistics — 3 hrs.**
Examination of phonology, syntax, and semantics in a variety of natural and artificial languages; includes study of language development and regional and social variation. No credit if prior credit in 63:130. Prerequisite: junior standing or consent of TESOL major advisor.
- 63:130(g). The Structure of English — 3 hrs.**
Linguistic analysis of phonology, syntax, and semantics in modern American English; includes study of language development and regional and social variation. No credit if prior credit in 63:125. Prerequisite: junior standing or consent of TESOL major advisor.
- 63:135. Language in Culture — 3 hrs.**
The interrelationship of language, culture, and non-verbal communication and the role each of these plays in shaping thought and attitudes. Prerequisite or corequisite: 63:125 or 63:130.
- 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 phonetics, distinctive features, and generative phonology. Prerequisite or corequisite: 63:125 or 63:130.
- 63:156(g). Syntax — 3 hrs.**
Theories of grammar from a generative-transformational point of view with special emphasis on English syntax. Prerequisite or corequisite: 63:125 or 63:130.
- 63:158(g). Semantics — 3 hrs.**
Traditional and recent theories of meaning in language. Prerequisite or corequisite: 63:125 or 63:130.
- 63:160(g). Sociolinguistics — 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 from a linguistic perspective 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. Prerequisites: 63:125 or 63:130; junior standing or consent of instructor.
- 63:192(g). Problems in English Grammar — 3 hrs.**
Prerequisite or corequisite: 63:125 or 63:130.
- 63:193(g). Teaching English to Speakers of Other Languages (TESOL) I — 3 hrs.**
Includes language acquisition, teacher/learner characteristics and strategies, teaching varieties of language, review of methodologies, communicative competence, and syllabus design. Prerequisite or corequisite: 63:125 or 63:130.
- 63:194(g). Teaching English to Speakers of Other Languages (TESOL) II — 3 hrs.**
Includes specific classroom techniques and activities; teaching the four skills; materials production, adaptation and evaluation; classroom management; and classroom tests. Prerequisite: 63:193 or consent of instructor.
- 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. Prerequisites: 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. Prerequisite or corequisite: 63:125 or 63:130.
- 63:198. Independent Study.**
- 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.
- 63:254. Seminar in Phonology — 3 hrs.**
- 63:256. Seminar in Syntax — 3 hrs.**
- 63:258. Seminar in Semantics — 3 hrs.**
- 63:289. Seminar in Language — 3 hrs.**
Topic to be announced in Schedule of Classes; may be repeated for credit. (Formerly 63:285.)
- 63:292. Second Language Acquisition — 3 hrs.**
Theories of second language acquisition, primarily as reflected in two approaches: contrastive analysis and error analysis. Investigation of social and psychological variables related to second language learning and applications for classroom teacher.
- 63:295. Language Testing — 3 hrs.**
An examination of the basic approaches and techniques for constructing and interpreting language tests.
- 63:297. Practicum.**
Graduate-level student teaching of English as a foreign language.
- 63:299. Research.**

64 Religion

64:030. What is Religion? — 3 hrs.

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 and Practices — 3 hrs.

Historical study of the development of doctrines of the Trinity, of Christ, and of the church and basic Christian practices. Prerequisite: junior standing or consent of instructor.

64:112(g). Development of Christianity: The Catholic Tradition — 3 hrs.

Worship, sacraments, religious life, and doctrine, from St. Augustine through the 16th Century. Prerequisite: junior standing or consent of instructor.

64:114(g). Development of Christianity: The Rise of Protestantism — 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.

64:115(g). Development of Christianity: Faith and the Modern World — 3 hrs.

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 a 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.

64:124. Religions of the World — 3 hrs.

Living religions of man with emphasis on their relevance to interpretations of existence, the problem of meaning and values, and human destiny.

64:126(g). Meditation and Mystical Experience — 3 hrs.

Examination of various techniques of meditation and their results, drawing from Yoga, Zen, Buddhist, Christian, and secular sources including first-hand accounts of meditational practice and philosophic and psychological studies in the area of mysticism. 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.

64:141(g). Old Testament — 3 hrs.

An introduction to the history and ideas of the Old Testament. Prerequisite: junior standing or consent of instructor.

64:142(g). New Testament — 3 hrs.

An introduction to the history and ideas of the New Testament. Prerequisite: junior standing or consent of instructor.

64:160(g). 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.

64:161(g). Religion, Magic and Witchcraft — 3 hrs.

Anthropological understanding of behavior dealing with the supernatural; supernatural beliefs, practices, and movements throughout the world. Prerequisite: 99:011 or consent of instructor. (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. Prerequisite: 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.

64:170. Bio-Medical Ethics — 3 hrs.

Application of principles and analytic methods of ethical theory to contemporary issues in medical practice and research. Topics include the fundamental concepts of health and disease, life and death; the rights and obligations of medical practitioners and their patients; informed consent and confidentiality; abortion and euthanasia; reproductive and transplantation technologies; health policy and the provision and rationing of health care.

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: consent of department head.

65 Philosophy

65:021. Philosophy: Basic Questions — 3 hrs.

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.

65:101(g). History of Philosophy: Medieval — 3 hrs.

The history of philosophy from late Roman times through the Middle Ages, with emphasis on Augustine and Thomas Aquinas. 65:021 strongly recommended to precede.

65:103(g). History of Philosophy: Renaissance through Enlightenment — 3 hrs.

The history of philosophy from the Renaissance through Hume, with emphasis on continental rationalism and British empiricism. 65:021 strongly recommended to precede.

65:104(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 Philosophy/66 Journalism 68 Humanities

65:147(g). Ethics in Business — 3 hrs.

Application of ethical principles and analytic methods to contemporary issues in business. Topics include the moral responsibility of corporations and their regulation; economic policy, business practices, and social justice; the rights and obligations of employers and employees; meaningful work, motivation, and the worker; affirmative action and reverse discrimination; the environment and the natural limits of capitalism. Prerequisite: junior standing or consent of instructor.

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.

65:166(g). Contemporary European Philosophy — 3 hrs.

Phenomenology, hermeneutics, critical theory, and deconstruction. The course will examine the issues raised by Heidegger, Gadamer, Merleau-Ponty, Ricoeur, Foucault, Derrida, Habermas, Kristeva, and others. Topics include history, language, art, technology, self. Prerequisite: junior standing or consent of instructor.

65:170. The Present Predicament — 3 hrs.

Explorations of certain societal trends which are posing a serious challenge to man's future; examination of human values and resulting institutional arrangements through which the values are expressed; consideration of alternatives.

65:172(g). 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, or (2) contemporary philosophical problems. Repeatable for a maximum of 6 hours. Prerequisite: consent of department head.

65:200. Philosophy of Language — 3 hrs.

An exploration of the problems of meaning, truth, understanding, and interpretation as analyzed by modern philosophers. The topics discussed will include speech acts and intentionality, the significance of syntactical form, reference and ontology, and the conceptual presuppositions of understanding and communication.

65:245. Ethics in Public Policy — 2 hrs.

This course will direct students' attention to major ethical issues facing practitioners of public policy analysis through: 1) a study of ethical principles and procedures of analysis; 2) application of these methods to crucial questions of professional conduct and responsibility; and 3) their application to selected policy problems of timely interest. Prerequisite: enrollment in the Master of Public Policy Degree Program or consent of instructor.

66 Journalism

66:032. Introduction to Mass Media — 3 hrs.

Technical and critical survey of print and electronic media, and related fields.

66:040. Reporting and News Writing — 3 hrs.

News values; methods of obtaining, verifying, writing, editing, and presenting news. Prerequisite: 62:005; 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: 62:015 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.

66:110. Journalism Internship — 1-6 hrs.

Provide journalism minor with experience on newspapers or in secondary school journalism programs. May be repeated for credit. Prerequisites: 66:040; 66:140; junior standing; consent of instructor.

66:131. History of Mass Communication — 3 hrs.

Development of American newspapers and periodicals, from early beginnings in Europe to present day; rise of radio and television.

66:132(g). Mass Communication Law — 3 hrs.

Origins and backgrounds of press law: libel and its defenses, penalties, right of privacy; problems of fair trial. Law and self-regulation in advertising, in broadcast media. 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.

66:147(g). International Journalism — 3 hrs.

Journalistic practices and philosophies in major regions of the world such as Europe and North America, Africa and Asia, and Latin America. Includes attention to the politics of global communication patterns and processes. Prerequisites: 66:032; 66:040; junior standing; or consent of instructor.

66:150. Editing and Design — 3 hrs.

Copyreading, proofreading, writing headlines; studying make-up, typography, and photography. Prerequisite: 66:040 or consent of instructor.

66:160(g). Specialized Reporting: _____ — 3 hrs.

Prepares students to gather and report news in specialized areas such as business, education, sports, science, health, environmental issues, and international affairs. Two or three topics to be included in each offering of the course; topics to be announced in the Schedule of Classes. May be repeated for credit only by taking different topics. Prerequisites: junior standing and 66:140; or consent of instructor.

68 Humanities

There is no humanities department as such. The courses below are interdisciplinary and are taught jointly by staff from several departments.

68:010. Leadership: Skills and Styles — 3 hrs.

Basic principles and skills of personal leadership; focus on clarifying values, motivating individuals, organizing groups. Includes practical applications and use of case studies.

68:021. Humanities I — 4 hrs.

Literature, philosophy, religion, and the fine arts, integrated with the history of Western Civilization (ancient times through the reformation).

68:022. Humanities II — 4 hrs.

A continuation of 68:021 (from the 17th century to the present).

68:040. Women's Studies: Introduction — 3 hrs.

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.

68:070. Latin America — 3 hrs.

Historical, political, social, and cultural elements that form the civilization of Latin America. No credit if student has credit in 78:140. May not be taken for credit on history majors or minors. (Same as 96:070.)

68:102(g). Non-Verbal Communication — 3 hrs.

Patterns of human expression apart from the spoken or written word. (Same as 50:102.)

68:110(g). Leadership: Concepts and Practice — 3 hrs.

Analysis of relationship between leadership theory and practice; focus on development of critical and evaluative skills. Includes historical and contemporary perspectives on leaders and issues. Prerequisites: 68:010 and junior standing or consent of instructor.

68:121. Russia/Soviet Union — 3 hrs.

An interdisciplinary examination of the culture, history, geography, economy, political system, and society of Russia and the Soviet Union. Russian Area Studies majors and minors may not take this course for General Education credit.

68:122. Japan — 3 hrs.

An introductory study of Japan: its geographical setting, historical background, cultural heritage, social and political systems, and economic development and importance.

68:124. China — 3 hrs.

A historical treatment of significant elements of Chinese culture and major aspects of modern China's transformations since the mid-nineteenth century.

68:125. 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. Middle East — 3 hrs.

An interdisciplinary examination of significant elements of Middle East culture and society, its current patterns, tensions, and contributions.

68:128. Africa — 3 hrs.

An interdisciplinary examination of contemporary African society and culture, its historical heritage, its problems, prospects and importance.

68:130. Culture of the Ghetto — 3 hrs.

Various aspects of the black experience: economics, psychology, education, sociology. Provides the student an opportunity to meet blacks from all walks of life, to travel to various ghettos in the country, to work with black children. May be repeated for an additional 3 hours of credit.

68:131. Practical Experience in Ghetto Living — 2 hrs.

Student to spend at least 5 hours a week working in a ghetto on a self-optional or assigned project; may include work in public school system, volunteer bureaus, and/or community social agencies. Project to be approved by the instructor at time of enrollment. Prerequisite or corequisite: 68:130. May be repeated for an additional 2 hours of credit.

68:132. Native North America — 3 hrs.

Ethnographic survey of the sociocultural systems developed by Native Americans north of Mexico; emphasizes the relationships that exist among ecological factors, subsistence techniques, social organizations, and belief systems and the impact that interactions with European and U.S. societies had on Indian lifestyles. (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 beliefs 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.

68:167. The Uses of the Humanities in Becoming Human — 3 hrs.

Using a mixture of films, text, interdisciplinary readings and class discussion, this course investigates specific uses of the humanities in the art of living.

68:168. Mythology — 3 hrs.

Study of primitive and sophisticated examples of myth and mythopoetic thinking from a variety of cultures; emphasis on how myths function in art, society, and the individual.

68:188. Seminar on Leadership Development: The Future — 1-2 hrs.

Synthesis of theory and practice of leadership; examination of case studies and research on leadership issues and ethics; preparation of career plans that include service component. Prerequisites: 68:010; 68:110 and junior standing or consent of instructor.

68:189(g). Seminar on Environmental Problems — 3 hrs.

Experience in environmental problem solving of both a theoretical and practical nature. Prerequisite: consent of instructor.

68:192. Junior-Senior Seminar — 3 hrs.

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.

Ideas and research concerning the anticipation of dying, toward the goal of sensitive communication with those most affected by death—the suicidal, the terminally ill, and the grieving.

68:198. Independent Study.

(See pp. 47, 125.)

70 Languages

70:099. Preparation for Study Abroad — 2 hrs.

For students planning to study and travel abroad. Includes practical, social, geographic, and cultural aspects; some emphasis on contrasting American and foreign cultures. No credit on major or minor in foreign language.

70:180(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.

70:190(g). The Teaching of Foreign Languages — 2-4 hrs.

Foreign language theories, terms, concepts and the demonstration of their practical application. Note: In order to apply this course toward a teaching degree, students must be admitted to the Teacher Education Program *before* taking 70:190. Prerequisite: 72/74/78/79:101 or 77:100. Corequisite: 72/74/77/78/79:191.

70:192(g). The Teaching of Foreign Languages in the Elementary Schools — 2-4 hrs.

Various approaches, teaching resources, instructional framework and classroom activities suitable for elementary education. Prerequisite: 7x:101 or 77:100. Corequisite: 7x:090.

70:195(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 topic(s) relevant to the individual student. Exercises in selecting, focusing, limiting and developing a topic in the student's target language. Prerequisite: senior standing or consent of instructor.

70:198. Independent Study.

70:230. Advanced Literary Translation — 3 hrs.

Preparing literary translation in English of a representative cross-section of literary genres. Extensive discussion of the practical and theoretical problems involved. Emphasis on creative aspects. Prerequisites: B.A. in one foreign language and 70:180.

70:290. Theory and Practice in Foreign Language Teaching — 1-3 hrs.

Synthesizes past and current theories of language acquisition with language teaching practice. May be repeated. Prerequisite: consent of instructor.

71 Chinese

71:001. Elementary Chinese I — 5 hrs.

For beginners.

71:002. Elementary Chinese II — 5 hrs.

Continuation of Elementary Chinese I. Prerequisite: 71:001 or consent of instructor.

71:011. Intermediate Chinese I — 5 hrs.

Continuation of Elementary Chinese II. Progressive development of writing, reading and speaking skills through a sequence of exercises relating to daily practical living. Grammatical refinement using numerous illustrations of more difficult new words in dialogues on everyday topics. Prerequisite: 71:002 or consent of instructor.

71:012. Intermediate Chinese II — 5 hrs.

Continuation of Intermediate Chinese I. Prerequisite: 71:011 or consent of instructor.

71:101. Advanced Chinese I — 3 hrs.

Increased use of compounds. Review of more difficult characters. Introduction to Chinese classical literature. Prerequisite: 71:012 or consent of instructor.

71:102. Advanced Chinese II — 3 hrs.

Continuation of Advanced Chinese I. Prerequisite: 71:101 or consent of instructor.

72 French

72 French

72:001. Elementary French I — 5 hrs.

For beginners. Not recommended for students who have had two or more years of French in high school or the equivalent.

72:002. Elementary French II — 5 hrs.

Continuation of 72:001. Not recommended for students who have had three or more years of French in high school or the equivalent. Prerequisite: 72:001 or equivalent.

72:011. Intermediate French — 5 hrs.

Provides thorough review of the patterns of French as well as development of vocabulary and emphasis on speaking and writing. Prerequisite: 72:002 or equivalent.

72:051. Composition — 2-3 hrs.

Progressive development of writing skill through a sequence of graded exercises on topics related to French civilization, with a review of basic structure. (Combination of credits together with 72:061 may not total more than 5 hours in one semester.) Prerequisites: 72:002; 72:011; or equivalents. Corequisite: 72:061 or other intermediate course with consent of department head.

72:061. Conversation — 2-3 hrs.

Develops oral fluency through pattern practice, systematically guided conversations on civilization topics using structures reviewed in the corresponding composition course and free conversation on subjects of current interest. (Combination of credits together with 72:051 may not total more than 5 hours in one semester.) Prerequisites: 72:002; 72:011; or equivalents. Corequisite: 72:051 or other intermediate course with consent of department head.

72:070. Selected French Readings — 3 hrs.

Intensive reading and discussion of extracts from books and magazine articles to develop reading ability through non-literary texts on various subjects of interest to the class, and develop other language skills through discussion. Prerequisites: 72:051; 72:061; or equivalents.

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 consent of instructor. Prerequisite or corequisite: 72:070 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 consent of instructor. Prerequisites: 72:051; 72:061; or consent of instructor.

72:104(g). Introduction to French Literature — 3 hrs.

Selected major works of representative French authors. Application of language skills to literary analysis and an introduction to critical theories. Prerequisite: 72:101 or equivalent. (Formerly 72:072.)

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, P. Benoit, Maurois, Darinos, 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: 72:101; 72:104; 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: 72:101; 72:104; or equivalents; junior standing or consent of instructor.

72:124(g). Contemporary France — 3 hrs.

A survey of recent developments and a description of the country, its people, customs and way of life, institutions, economy and art. Prerequisite or corequisite: 72:101 or equivalent. May be repeated once for credit in summer institutes abroad.

72:125(g). French Culture and Civilization — 3 hrs.

Includes historical, cultural and sociological background for the understanding of contemporary France. May be repeated in summer institutes abroad for 2 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.

72:160(g). Advanced Oral Practice — 2-4 hrs.

Development of oral fluency and greater accuracy through structured oral exercises; free conversation dealing with civilization and topics of current interest. Structural, morphological and phonetic exercises designed to meet the needs of the individual participants. Prerequisite or corequisite: 72:101 or equivalent.

72:161(g). Problems in French Pronunciation — 2 hrs.

Correction of and practice in producing French sounds, intonation rhythm and stress to minimize foreign accent. Prerequisites: 72:051; 72:061; or equivalents.

72:180(g). Applied Linguistics: French — 3 hrs.

Basic linguistic concepts applied to learning the French language. Prerequisite: 72:101 or equivalent.

72:185(g). Introduction to Translation — 3 hrs.

An introduction to journalistic and technical translation using varied textual materials (public media, scholarly and professional texts), from English to French and French to English. May be repeated once for credit. Prerequisite: 72:101 or equivalent.

72:191. Bilingual Practicum — 1-3 hrs.

Participants meet on a regular basis with instructor to acquire first-hand knowledge of foreign language methodologies through activities and class observations. This course is required for students enrolled in the foreign-language teacher education program. Prerequisite: 72:101. Corequisite: 70:190.

72:201. Advanced Composition and Stylistics — 3 hrs.

Study of stylistic devices; examination of principal morphological, syntactical and semantic problems.

72:203. Structure of French — 3 hrs.

Phonology, morphology, and syntax of current French. Stress is placed on areas of French structure which cause problems for native speakers of English.

72:207. Contemporary French Speech — 2 hrs.

Understanding and identifying major levels of spoken French, including elegant, standard and familiar speech styles; structural, lexical, and phonological study of current French speech, stressing areas of socio-linguistic importance.

72:220. Problems in Interpreting — 3 hrs.

Techniques of interpretation including consecutive and simultaneous translation. Prerequisite: 72:108 or comparable translation skills.

72:225. Problems in Translation — 3 hrs.

Techniques of translation with journalistic and technical emphases.

72:226. French Graduate Summer 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.

72:270. French Literature in Review — 3 hrs.

Chronological review of major periods, works, and writers of French literature through reading and discussion. Focus on the development of each literary genre. Primarily for students planning to take M.A. comprehensives in French. Prerequisite: graduate standing or consent of instructor.

72:289. Seminar — 3 hrs.

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: 74:002 or equivalent.

74:052. Composition — 2-3 hrs.

Prerequisite: 74:011 or equivalent.

74:062. Conversation — 2-3 hrs.

Prerequisite: 74:011 or equivalent.

74:070. Perspectives on Modern Germany and Austria — 3 hrs.

Introduction to contemporary German and Austrian culture for the intermediate learner of German. Includes readings on current issues and written, oral, and aural exercises. Prerequisites: 74:052; 74:062; or equivalents.

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 consent 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 consent of instructor. Prerequisites: 74:052; 74:062; or equivalents.

74:102(g). Advanced Composition and Grammar Review — 3 hrs.

Improvement of writing skills through composition, in-class grammar 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.

74:104(g). Introduction to German Literature — 3 hrs.

Selected major works of representative German authors. Application of language skills to literary analysis and an introduction to critical theories. Prerequisite: 74:101 or equivalent. (Formerly 74:071.)

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. Prerequisites: 74:052 or equivalent; junior standing or consent of instructor.

74:107(g). Introduction to Interpreting — 3 hrs.

An introduction to consecutive and simultaneous translation. May be repeated once for credit. Prerequisite: 74:103 or comparable fluency in German.

74:114(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.

74:121(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: 74:101; 74:104; 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: 74:101; 74:104; 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 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.

74:161. Problems in German Pronunciation — 1-2 hrs.

Practice in spoken German for non-native speakers of German. Prerequisites: 74:052; 74:062; or equivalents.

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 German/77 Russian 78 Spanish

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.

74:191. Bilingual Practicum — 1-3 hrs.

Participants meet on a regular basis with instructor to acquire first-hand knowledge of foreign language methodologies through activities and class observations. This course is required for students enrolled in the foreign-language teacher education program. Prerequisite: 74:101. Corequisite: 70:190.

74:201. Composition and Stylistics — 3 hrs.

Study of stylistic devices; examination of principal morphological, syntactical, and semantic problems. May be offered for 4 hours on the summer study abroad program.

74:203. Structure of German — 3 hrs.

Diachronic and synchronic description of Modern High German phonology, morphology, and syntax.

74:220. Problems in Interpreting — 3 hrs.

Techniques of interpretation including consecutive and simultaneous translation. Prerequisite: 74:107 or comparable translation skills.

74:225. Problems in Translation — 3 hrs.

Techniques of translation with 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.

74:289. Seminar — 3 hrs.

Various topics will be offered such as Baroque Poetry, Classical Drama, Contemporary Prose Fiction, East German Literature. Specific area to be announced in Schedule of Classes for current semester. May be repeated for credit, except when topic is identical.

77 Russian

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.

77:011. Intermediate Russian I — 5 hrs.

Continued development of basic skills with further enlargement of vocabulary to read expository prose. Prerequisite: 77:002 or equivalent.

77:012. Intermediate Russian II — 5 hrs.

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 enables 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.

77:100(g). Advanced Composition — 3 hrs.

Analysis of the major morphological and syntactical structures of the Russian language, with a look at contrasting grammatical and linguistic approaches to the problem of correct usage. Stress will be placed on the successful application of the principles learned. Prerequisite: 77:012 or equivalent.

77:102(g). Introduction to Russian Literature — 3 hrs.

Selected major works of representative Russian authors from 1800 to the present, with the political and literary history to their time. Prerequisites: 77:100; 77:103; or equivalents.

77:103(g). Advanced Conversation — 3 hrs.

Development of oral fluency through systematically guided conversations on cultural topics and free conversation on topics of interest. Prerequisite: 77:100 or equivalent.

77:105(g). Stylistics — 3 hrs.

An introduction to stylistics analysis. Development of style in composition through study of excerpts from contemporary Russian literature. Prerequisites: 77:100; 77:103; or equivalents.

77:121(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: 77:102; 77:103; or equivalents; junior standing or consent of instructor.

77:122(g). Special Topics in Literature — 3 hrs.

Special topics and aspects of the discipline. May be repeated except when topic is identical. Prerequisites: 77:102; 77:103; or equivalents; junior standing or consent of instructor.

77:131(g). Russian Poetry — 3 hrs.

Selections from Pushkin to the present. Prerequisites: 77:102; 77:103; or equivalents.

77:132(g). Nineteenth Century Russian Short Fiction — 3 hrs.

Representative short fiction from Sentimentalism to Realism. Prerequisites: 77:102; 77:103; or equivalents.

77:134(g). Twentieth Century Russian Literature — 3 hrs.

Selections from Russian Symbolism, pre- and post-Revolutionary literature, to the present. Prerequisites: 77:102; 77:103; or equivalents.

77:141(g). Russian Culture and Civilization — 3 hrs.

Russian culture in both pre- and post-Revolutionary periods as it relates to its history: emphasis on literature, architecture, painting, theatre and music. Prerequisites: 77:102; 77:103; or equivalents.

77:191. Bilingual Practicum — 1-3 hrs.

Participants meet on a regular basis with instructor to acquire first-hand knowledge of foreign language methodologies through activities and class observations. This course is required for students enrolled in the foreign-language teacher education program. Prerequisite: 77:100. Corequisite: 70:190.

78 Spanish

78:001. Elementary Spanish I — 5 hrs.

For beginners. Not recommended for students who have had two or more years of Spanish in high school or the equivalent.

78:002. Elementary Spanish II — 5 hrs.

Continuation of 78:001. Not recommended for students who have had three or more years of Spanish in high school or the equivalent. Prerequisite: 78:001 or equivalent.

78:011. Intermediate Spanish — 5 hrs.

Provides thorough review of essential Spanish grammar, enlarges vocabulary and augments the skills of listening, reading, writing, speaking, and cultural awareness. Prerequisite: 78:002 or equivalent.

78:052. Composition — 2-3 hrs.

Continuation of 78:011, leading to free composition. Prerequisite: 78:011 or equivalent. Corequisite: 78:062 or other intermediate course with consent of department head.

78:062. Conversation — 2-3 hrs.

Continuation of 78:011, with wider range of subjects, vocabulary and structures. Prerequisite: 78:011 or equivalent. Corequisite: 78:052 or other intermediate course with consent of department head.

78:090. Teaching Spanish in the Elementary School — 1 hr.

Techniques and practice in teaching Spanish at elementary school level; includes weekly teaching experience in local school, plus class sessions. May be repeated twice for credit. Prerequisite: consent of instructor.

78:091. Bilingual Pre-Practicum — 1-6 hrs.

For second- and third-level students. Work with first-level classes which enables student to reinforce basic language skills through direct participation with 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.

78:101(g). Advanced Composition — 3 hrs.

Analysis of the major morphological and syntactical structures of the Spanish language with a look at contrasting grammatical and linguistic approaches to problems of correct usage. Stress will be placed on the successful application of the principles learned. Recommended to be taken with 78:104. Prerequisites: 78:052; 78:062; or equivalents.

78:102(g). Commercial Spanish — 3 hrs.

Vocabulary and format for written correspondence in Spanish with emphasis on commercial vocabulary and idioms. Prerequisite: 78:052 or equivalent.

78:103(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: 78:101 or equivalent.

78:104(g). Introduction to Hispanic Literature — 3 hrs.

Selected major works of representative Hispanic authors. Application of language skills to literary analysis and an introduction to critical theories. Prerequisite: 78:101 or equivalent.

78:105(g). Stylistics — 3 hrs.

An introduction to stylistic analysis. Development of style in composition through study of excerpts from the contemporary Spanish works and literary translation into Spanish. Prerequisites or corequisites: 78:101; 78:104; or equivalents.

78:107(g). Introduction to Interpreting — 3 hrs.

An introduction to consecutive and simultaneous translation. May be repeated once for credit. Prerequisite: 78:103 or comparable fluency in Spanish.

78:112(g). Latin American Literature — 3 hrs.

Trends in Latin American Literature and representative authors. Prerequisites: 78:101; 78:104; or equivalents.

78:118(g). Contemporary Spanish Literature — 3 hrs.

Peninsular novel, essay and drama since the Generation of '98. Prerequisites: 78:101; 78:104; or equivalents.

78:120. Ibero-American Civilization for Business Students — 3 hrs.

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.

78:121(g). Spanish Media — 3 hrs.

Provides opportunity to reinforce and expand basic knowledge of the language through reading, writing, and discussing contemporary and realistic issues using Spanish mass media (e.g., newspapers, magazines, radio, television, and film). Prerequisite: 78:101 or equivalent.

78:122(g). Special Topics in Literature — 3 hrs.

Special topics and aspects of the discipline. Prerequisites: 78:101; 78:104; or equivalents; junior standing or consent of instructor. May be repeated, except when topic is identical.

78:123(g). Spanish Civilization — 3 hrs.

The Spanish cultural heritage as shaped by its geography and history, and as revealed in its arts, sports, customs, traditions and economic, educational, social and political institutions. Prerequisite or corequisite: 78:101 or equivalent.

78:124(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: 78:101; 78:104; or equivalents; junior standing or consent of instructor.

78:125. Modern Mexico — 3 hrs.

A study of the geographic, socio-economic, historico-political aspects of contemporary Mexico as reflected in its art, folklore, and culture. Offered only in conjunction with the UNI Study Program in Mexico.

78:126(g). Spanish 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: 78:101 or equivalent.

78:130(g). Golden Age Literature — 3 hrs.

Outstanding literary prose of this period. Prerequisites: 78:101; 78:104; or equivalents.

78:132(g). Golden Age Drama and Lyric — 3 hrs.

Study of the theatre and poetry of the Spanish Renaissance and Baroque eras. Intensive reading of selected comedies of Lope de Vega, Tirso de Molina, and Calderon, and the poetry of Garcilaso de la Vega, Gongora, Quevedo, Fray Luis de Leon, and San Juan de la Cruz. Prerequisites: 78:101; 78:104; or equivalents.

78:134(g). Nineteenth Century Spanish Literature — 3 hrs.

Study of Romanticism, Realism, and Naturalism. Prerequisites: 78:101; 78:104; or equivalents.

78:139(g). Theatre — 3 hrs.

Peninsular and Latin American theatre from its origin to the present. Prerequisites: 78:101; 78:104; or equivalents.

78:140(g). Latin American Civilization — 3 hrs.

The culture of Latin America as shaped by its geography, history, and pre-history, and as revealed in its arts, sports, customs, traditions and economic, social and political institutions. Prerequisite or corequisite: 78:101 or equivalent.

78:142(g). The Latin American Novel — 3 hrs.

The twentieth century will be stressed. Prerequisites: 78:101; 78:104; or equivalents.

78:144(g). Hispanic Poetry — 3 hrs.

Modernism and Post-Modernism will be stressed. Prerequisites: 78:101; 78:104; or equivalents.

78:150(g). Written Communication — 3 hrs.

Topics taken from daily life; compositions written and corrected in the classroom, grammar review, and Spanish letter writing. Offered only in conjunction with the Spanish institutes abroad.

78:151(g). Advanced Oral Communication — 3 hrs.

Topics of Spanish daily life; emphasis on idioms typical of that linguistic community. Student to make periodic public surveys to put knowledge to more formal use. Offered only in conjunction with the Spanish institutes abroad.

78:152(g). Contemporary Hispanic Culture — 3-5 hrs.

Contemporary Hispanic culture as it reflects and relates to its history and pre-history as well as to the current environment; emphasis on literature, architecture, painting, sculpture, and folk music. Offered only in conjunction with the Spanish language institutes abroad. May be repeated but not to exceed 5 hours. Prerequisite: junior standing or consent of instructor.

78:161(g). Problems in Spanish Pronunciation — 2 hrs.

Correction of and practice in producing Spanish phonemes to minimize foreign accent. Prerequisites: 78:052; 78:062; or equivalents.

78:180(g). Applied Linguistics: Spanish — 3 hrs.

Basic linguistic concepts applied to learning the Spanish language. Prerequisites: 78:101; 78:104; or equivalents.

78:185(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 Spanish and Spanish to English. May be repeated once for credit. Prerequisite: 78:101 or other advanced composition course in Spanish.

78:191. Bilingual Practicum — 1-3 hrs.

Participants meet on a regular basis with instructor to acquire first-hand knowledge of foreign language methodologies through activities and class observations. This course is required for students enrolled in the foreign-language teacher education program. Prerequisite: 78:101. Corequisite: 70:190.

78:195(g). Psycholinguistics: Spanish — 3 hrs.

Introduction to field of psycholinguistics and its application to study of a language. Analysis of language from humanistic point of view; students learn to deal more effectively with cross-cultural situations reflected in the language spoken by a given culture. Prerequisite or corequisite: 78:101.

78:201. Spanish Literature in Review — 3 hrs.

Major periods of Spanish literature, literary genres and techniques using intensive readings, lectures, and student reports. Primarily for students planning to take the M.A. Spanish comprehensives.

78:205. Analysis of Spanish — 3 hrs.

A study of Spanish syntax from the point of view of traditional grammar, with comparisons to the findings of applied linguistics. Whenever possible, students will have firsthand experience with linguistic research.

78:220. Problems in Interpreting — 3 hrs.

Techniques of interpretation including consecutive and simultaneous translation. Prerequisite: 78:107 or comparable translation skills.

78:225. Problems in Translation — 3 hrs.

Techniques of translation with journalistic and technical emphases. Prerequisite: 78:185 or comparable translation skills.

78:226. Spanish 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: 78:101 or equivalent.

78:231. Cervantes — 3 hrs.

Intensive study of *Don Quijote*.

78:232. Old Spanish — 2 hrs.

A literary and linguistic study of the *Poema de Mio Cid* and other selected early works.

78:250. Culture of Castile — 3 hrs.

Old Castile — exploration of the essence of Castilian culture which forms the basis for the contemporary civilization of all Spanish-speaking countries. Offered only in conjunction with the Spanish institutes abroad.

78 Spanish/79 Portuguese 80 Mathematics

78:289. Seminar — 3 hrs.

Various topics will be offered such as Medieval Prose Fiction, Mexican Novel, Antillean Poetry, Renaissance Drama, Poetry of Federico Garcia Lorca. Specific area to be announced in the Schedule of Classes for current semester. May be repeated except when topic is identical.

79 Portuguese

79:001. Elementary Portuguese I — 5 hrs.

For beginners.

79:002. Elementary Portuguese II — 5 hrs.

Continuation of 79:001. Prerequisite: 79:001 or consent of instructor.

79:050. Composition — 4 hrs.

Portuguese writing fundamentals, using cultural materials and a grammar review. Prerequisite: 79:002. Corequisite: 79:060; or consent of instructor.

79:060. Conversation — 4 hrs.

Portuguese conversational proficiency, using cultural materials to build vocabulary, topics and structures. Prerequisite: 79:002. Corequisite: 79:050; or consent of instructor.

79:091. Bilingual Pre-Practicum — 1-6 hrs.

For second- and third-level students. Work with first-level classes which enables student to reinforce basic language skills through direct participation with first-level students. May be repeated, but not to exceed 6 hours. Prerequisite: consent of instructor.

79:101(g). Advanced Composition — 2-3 hrs.

Analysis of the major morphological and syntactical structures of the Portuguese language with a look at contrasting grammatical and linguistic approaches to problems of correct usage. Stress will be placed on the successful application of the principles learned. During academic year, undergraduates earn 3 credits, and graduates earn 2 credits. Prerequisites: 79:050; 79:060; or equivalents; junior standing or consent of instructor.

79:104(g). Introduction to Portuguese Language Literatures — 3 hrs.

Selected major and representative works of authors from Portugal, Brazil, and Lusophone Africa. Application of language skills to basic literary texts; includes related cultural elements. Prerequisite: 79:101 or equivalent.

79:118(g). Topics and Figures in Luso-Brazilian Literature — 3 hrs.

Intensive readings analyzed of major authors or literary movements of Portugal and Brazil. May be repeated except when topic is identical. Prerequisites: 79:101; 79:104; or equivalents; junior standing or consent of instructor.

79:123(g). Civilization of the Portuguese-Speaking World — 2-3 hrs.

Culture, history and geography of Portugal, Brazil, Lusophone Africa, and other Portuguese-speaking communities. During academic year, undergraduates earn 3 credits, and graduates earn 2 credits. Prerequisite or corequisite: 79:101 or equivalent; junior standing or consent of instructor.

79:180(g). Topics in Portuguese Language — 3-4 hrs.

Various topics on the history, structures, phonetics and translation fundamentals of Portuguese. May be repeated except when topic is identical. Prerequisites: 79:101 or equivalent; junior standing or consent of instructor.

79:191. Bilingual Practicum — 1-3 hrs.

Participants meet on a regular basis with instructor to acquire first-hand knowledge of foreign language methodologies through activities and class observations. This course is required for students enrolled in the foreign-language teacher education program. Prerequisite: 79:101.

80 Mathematics

80:002. Elementary Algebra — 0 hrs.

First and second degree equations, operations with polynomials, exponents and radicals. Designed for students who do not possess sufficient mathematics background to do college work. Successful completion will satisfy the university's high school mathematics requirement. Course meeting schedule will be the same as that of a three credit-hour course.

80:023. Mathematics in Decision Making — 3 hrs.

A survey of mathematical ideas of particular use in analyzing information and in forming and analyzing hypotheses. Topics include logical statements, probability, statistics, graphs, interest and matrices.

80:030. Mathematics for Elementary Teachers — 3 hrs.

Mathematics as problem solving, communication, connections, and reasoning with regard to tasks involving numeration, relationships, estimation, and number sense of whole and rational numbers, measurement, and geometry and spatial sense. Activities and models appropriate to elementary school mathematics are used to represent these topics.

80:037. Technology for Elementary School Mathematics Teachers — 3 hrs. Solving problems with calculators and computers; investigating LOGO. Using computers, calculators, and other technology for teaching elementary school mathematics. (Formerly 81:037.)

80:040. Intermediate Algebra — 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.

80:046. Elementary Analysis — 4 hrs.

Pre-calculus mathematics. Equations and inequalities. Logarithms, exponential and circular functions. Analytic trigonometry, analytic geometry, mathematical induction. Applications.

80:048. Condensed Calculus — 4 hrs.

Survey of analytic geometry and elementary calculus with emphasis on applications. May not be applied to Mathematics major or minor. Prerequisite: 80:040 or equivalent.

80:050. Matrices with Applications — 3 hrs.

Introduction to matrices, systems of linear equations, vector spaces and linear mappings, rank and inverses, determinants, characteristic values and characteristic vectors. Prerequisite: 80:046. Students with credit in 80:161 should not enroll in this course without consent of the head of the department.

80:060. Calculus I — 4 hrs.

The derivatives and integrals of elementary functions and their applications. Prerequisite: 80:046 or equivalent.

80:061. Calculus II — 4 hrs.

Continuation of 80:060, which is a prerequisite.

80:062. Calculus III — 4 hrs.

Continuation of 80:061, which is a prerequisite.

80:063. Mathematical Methods for the Physical Sciences — 4 hrs.

Series, complex numbers, multivariable calculus and Fourier series; developed from an applied point of view. May replace 80:062 for a student with a major in a physical science. Student may not earn credit for both 80:062 and 80:063. Prerequisite: 80:061.

80:072. Introduction to Statistical Methods — 3 hrs.

Descriptive statistics including correlation and curve fitting. Intuitive treatment of probability and inferential statistics including estimations and hypothesis testing. Students with credit in 80:172 should not enroll in 80:072.

80:074. Discrete Mathematics — 3 hrs.

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.

80:080. Mathematics of Finance — 3 hrs.

A study of the mathematics of financial transactions: simple and compound interest, annuities, amortization of indebtedness, bonds, depreciation, life annuities and death insurance. Of special interest to actuarial and business students. Prerequisite: a working knowledge of algebra.

80:092. Introduction to Mathematical Modeling — 3 hrs.

The components of mathematical modeling. The formulation, interpretation and testing of models. Prerequisite: four years of college preparatory mathematics, or 80:046.

80:111(g). Introduction to Analysis for Elementary Teachers — 4 hrs.

Investigating real number systems, relations, functions and their graphs, systems of equations and inequalities, and their applications. Using physical models and technology to explore and represent these topics. Prerequisites: 80:030 and 80:037.

80:112(g). Introduction to Geometry and Measurement for Elementary Teachers — 3 hrs.

Van Hiele levels of thinking. Investigation of two- and three-dimensional concepts, rigid transformations, symmetry, and spatial sense. Prerequisites: 80:030 and 80:037.

80:113(g). Topics in Mathematics for Grades K-8 — 3 hrs.

Investigation of ratio, proportion, percent; number theory; data analysis; patterns; and connections to algebra and geometry. These mathematical topics will be explored in the context of the K-8 mathematics curriculum. Prerequisites: 80:030 and 80:037.

80:114(g). Problem Solving in Mathematics for Elementary Teachers — 4 hrs.

Strategies for constructing and communicating a mathematics problem solving process. Analysis of resources and strategies to generate mathematics tasks and to create an effective problem solving environment. Problem solving as a means of constructing mathematics knowledge. Prerequisites: 80:134 and at least one of 80:111, 80:112, 80:113.

80:134. Teaching Mathematics in the Elementary School — 3 hrs.

Effective instructional models and strategies for teaching elementary school mathematics; will involve selecting and designing mathematical tasks, creating an environment, and orchestrating discourse. Using and supplementing mathematics materials within a sound psychological framework for making instructional decisions. Prerequisite: 80:030.

80:136(g). Metric System and Measurement — 2 hrs.

Basic ideas of measurement (e.g., meaning, standard units, and errors). Experiments for experiences with metric units for length, area, volume, mass and temperature. Simple conversion techniques between and within systems. This course is available only through correspondence. Prerequisite: junior standing or consent of department.

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 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. Prerequisites: 80:062 or 80:063; 80:076.

80:141(g). Intermediate Mathematical Analysis II — 3 hrs.

Riemann integration. Sequences and series of functions. Introduction to Lebesgue integration. Prerequisite: 80:140.

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 transfinite numbers. Prerequisite: 80:046 or 80:111; junior standing or consent of department.

80:147(g). Advanced Calculus I — 3 hrs.

Series and sequences of functions. Theory and application of multivariable functions. Emphasis on applications. Prerequisites: 80:062 or 80:063; 80:076.

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 n th order linear differential equations with constant coefficients. Prerequisites: 80:062 or 80:063; 80:076; 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.

Markov chains, Poisson processes, continuous time Markov chains, renewal processes, Brownian motion and stationary processes. Prerequisites: 80:076; 80:152.

80:155(g). Elementary Differential Geometry — 3 hrs.

The analytic study of curves and surfaces in three-dimensional Euclidean space. Prerequisites: 80:062; 80:076.

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.

80:157(g). Statistical Quality Control — 3 hrs.

Exploratory data analysis, Shewhart control charts and their variations, process capability analysis, CUSUM charts, EWMA charts, sampling inspection by attributes and by variables, continuous sampling plans, application of design of experiments in quality engineering. Prerequisites: 80:076; 80:152 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. Prerequisites: 80:076; 80:061 or equivalent.

80:161(g). Linear Algebra I — 3 hrs.

Vector spaces, linear transformations, determinants, eigenvalues and eigenvectors, canonical forms, inner product spaces. Prerequisite: 80:160.

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.

Historical survey of Euclidean geometry and an examination of its modern formulation. Introduction to transformational geometry. Elements of hyperbolic non-Euclidean geometry and its models in the Euclidean plane and space. 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. Prerequisites: 80:076; 80:165.

80:167(g). Topology I — 3 hrs.

An introductory study of metric spaces, completeness, topological spaces, continuous functions, compactness, connectedness, separability, product and quotient spaces. Prerequisite: 80:061.

80:168(g). 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 consent of department.

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 consent of department.

80:174(g). Mathematical Statistics I — 3 hrs.

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; 80:076; 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: 81:070 or equivalent; 80:061; 80:050 or 80:076.

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: 81:070 or equivalent; 80:061; 80:050 or 80:076.

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 consent of department.

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 consent of department.

80:182(g). Introduction to Set Theory — 3 hrs.

An overview of Cantor's set theory. Informal introduction to the axioms of set theory. General relations and functions. Order relations. The axiom of choice, Zorn's lemma, and well-ordering. Ordinal and cardinal numbers and their arithmetics. The Cantor-Schroeder-Bernstein theorem. Prerequisite: 80:160 or 80:165 or 80:169.

80:183(g). Mathematical Logic II — 3 hrs.

Semantics of the predicate calculus. Gödel's completeness theorem for first order theories. Completeness, categoricity and decidability. Some decidable mathematical theories and the method of elimination of quantifiers. Prerequisite: 80:169.

80:184(g). Introduction to Automata Theory — 3 hrs.

Finite automata and their decision problems: perspectives from finite-state machines, neural networks, and regular sets. Introduction to Turing machines, computability, and the halting problem. Students may not earn credit in both 80:184 and 81:184. Prerequisites: 80:061 and at least one 100-level mathematics course; or 81:135. (Same as 81:184.)

80:185(g). History of Mathematics: From the Calculus to the 21st Century — 3 hrs.

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; a brief comparison. Grammars and their generated languages. The Chomsky hierarchy and corresponding automata theories. Operations on languages. Some solvable and unsolvable problems. Students may not earn credit in both 80:187 and 81:187. Prerequisites: 80:061 and at least one 100-level mathematics course; or 81:135. (Same as 81:187.)

80:189(g). Geometric Transformations — 3 hrs.

Isometries and similarity transformations in the Euclidean plane and Euclidean space. The existence and classification of isometries. Applications to concepts and problems in geometry, physics and modern algebra, and to the analysis of congruence, similarity, symmetry groups, tessellations, and Escher-type designs. Prerequisites: 80:076 and 80:165.

80:190. The Teaching of Secondary Mathematics — 3 hrs.

Teaching strategies for grades 7-12; roles of mathematics content and learning; participation in a 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, designing and providing appropriate mathematical tasks for students with special needs. Prerequisite: 80:134 or 80:190.

80:193(g). Linear Algebra II — 3 hrs.

Inner product spaces, Gram-Schmidt orthonormalization, unitary operators and their matrices, bilinear forms, Hermitian forms, normed linear vector spaces. 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.

80:198. Independent Study.**80:201. Mathematical Analysis I — 3 hrs.**

The real numbers. Topology of Cartesian spaces. Continuous functions. Differentiation in Cartesian spaces. Prerequisite: 80:140 or consent of instructor.

80:202. Mathematical Analysis II — 3 hrs.

Riemann-Stieltjes and Lebesgue integrals. Integration in Cartesian spaces. Improper and infinite integrals. Infinite series. Prerequisite: 80:201.

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.

Analytic continuation. Harmonic functions. Entire functions. Conformal mapping. Selected applications. Prerequisite: 80:203.

80:210. Theory of Numbers — 3 hrs.

A mathematical study of the integers: induction, divisibility, prime numbers, congruences, quadratic reciprocity, multiplicative functions.

80:235. Problems in Teaching Elementary School Mathematics — 2 hrs.

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: consent of department.

80:236. Advanced Foundations of Arithmetic — 3 hrs.

Formal study of the development and structure of arithmetic. Topics from statistics, probability and problem solving at levels appropriate to elementary and middle school mathematics also included.

80:245. 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.

80:246. Topics in the History of Mathematics — 3 hrs.

Topics from the history of algebra, analysis, arithmetic, geometry, number theory, probability, and topology as they appear in the development of Mesopotamian, Greek, Islamic, Indian, Chinese and western civilizations. Prerequisites: 80:180 or 80:185.

80:266. Topics in Geometry — 3 hrs.

Topics from: geometric symmetry (the rosette, frieze, and wallpaper groups); dissection theory; the Banach-Tarski paradox; transformational geometry; geometric inequalities; the history of geometry. May be repeated on a different topic with the consent of instructor. Prerequisite: 80:165.

80:273. Topics in Probability and Statistics — 3 hrs.

Topics chosen from correlation and regression analysis, analysis of variance and co-variance, non-parametric methods, order statistics. Prerequisite: consent of instructor.

80:280. Curricula in Elementary School Mathematics — 3 hrs.

Experimental and current curricula; purpose, organization and design considered with methods of implementing curricular change.

80:281. Theories of Learning Elementary School Mathematics — 3 hrs.

Exploration of findings of selected learning theories as these apply to both content and pedagogy in the elementary mathematics program.

80:290. Problems in Teaching Junior High School Mathematics — 2 hrs.

Course content decided by participants and instructor. Both mathematics content and methodology of the junior high school considered. May be repeated once for credit. Prerequisite: consent of department.

80:291. Problems in Teaching High School Mathematics — 2 hrs.

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: consent of department.

80:292. Teaching Students with Learning Problems in Mathematics — 2 hrs.

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

81:025. The Computer in Society — 3 hrs.

Introduces basic computer concepts; survey of available computer equipment; 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.

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.

81:081. Computer Programming I — 3 hrs.

An introduction to algorithms and their implementation using a problem-oriented language. Includes significant emphasis on program design and style. Prerequisite: 81:070 or one year of high school programming or equivalent.

81:082. Computer Programming II — 3 hrs.

A continuation of Computer Programming I and an introduction to data and file structures. Continued emphasis on design and style with more complex 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.

81:130. Data and File Structures — 3 hrs.

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; C or better in 81:082.

81:132(g). Management of Data — 3 hrs.

Study of methods for data management. Study of the three data models most widely used in database management systems: relational, hierarchical, and network models. Prerequisites: 81:111 or consent of instructor; 81:130.

81:135(g). Programming Languages — 3 hrs.

Study of the run-time behavior of programs, control structures, data types and structures, and primitive operations of programming languages. Several languages used to illustrate concepts. Prerequisite: 81:130.

81:140(g). Computer System Structures — 3 hrs.

A systematic view of operating systems; emphasis on understanding and use of commands and utilities. Includes fundamental operating system concepts and internals, 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.

81:179. Cooperative Education — 1-4 hrs.

Application of classroom learning to field experience. Credit may not be applied to major or minor. Available only on credit/no-credit basis.

81:184(g). Introduction to Automata Theory — 3 hrs.

Finite automata and their decision problems: perspectives from finite-state machines, neural networks, and regular sets. Introduction to Turing machines, computability, and the halting problems. Students may not earn credit in both 80:184 and 81:184. Prerequisites: 80:061 and at least one 100-level mathematics course; or 81:135. (Same as 80:184.)

81:187(g). Formal Languages — 3 hrs.

Natural languages and formal languages: a brief comparison. Grammars and their generated languages. The Chomsky hierarchy and the corresponding automata theories. Operations on languages. Some solvable and unsolvable problems. Students may not earn credit in both 80:187 and 81:187. Prerequisites: 80:061 and at least one 100-level mathematics course; or 81:135. (Same as 80:187.)

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.

81:251. Computers, Computer Science, and Education — 3 hrs.

Survey of the history and applications of computers, the field of computer science, and the use of computers in education. Prerequisite: consent of department.

81:252. Computer Science Curriculum Development — 2 hrs.

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.

81:253. Problems in Teaching Computer Science — 2 hrs.

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 UNI'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 advisor. Prerequisite: junior standing.

82:130(g). Experiences in Elementary School Science — 2 hrs.

Develops understanding of science as an investigative process and how this relates to elementary science teaching. Includes seminar discussions and field experiences in applying knowledge of science content and pedagogy to working with elementary level students. Prerequisites: 21:141; two courses of 82:181, 84:181, or 87:181.

82 Science and Science Education/ 84 Biology

82:132. Experience in Environmental Education — 4 hrs.

Current trends in theory and content of the environmental education process; theory and practice with techniques, materials, and equipment of environmental education and interpretation in the classroom and the out-of-doors. Use of nature centers, parks, school grounds for learning and interpretation are included. Lecture/discussion 2 hours/week; lab and field work 2 hours/week plus hours arranged.

82:140. Environment, Technology, and Society — 2 hrs.

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.

82:181. Investigations in Physical Science — 4 hrs.

Provides an introduction to significant concepts and theories of physical science and a model of effective teaching strategies related to the elementary school level. Topics include energy, waves, mole relationships, solutions, acids and basis, electricity. Discussion and/or lab, 5 periods. Prerequisites: 80:030; 82:031; 82:032.

82:189. Seminar in Environmental Problems — 1 hr.

Current topics to be explored by student teams. Team examination of various facets of an issue, focusing upon development of a factual resume of natural, political, economic and humanistic data which will be integrated for use in developing potential solutions. Will include value clarification activities.

82:190. Orientation to Science Teaching — 2 hrs.

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: 6 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.

82:198. Independent Study.

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.

82:213. Teaching-Learning Models in Science Education — 2 hrs.

In-depth examination of pedagogical models from hierarchy to inquiry as applicable to science education. The psychological basis for pedagogical models is a central focus of the course. The implication for science teaching and examples from science curricula are studied. Prerequisite: 20:040 or equivalent.

82:230. Environmental Education Program Development — 3 hrs.

Application of environmental/conservation education content and process to curriculum and program development. Students will formulate or revise programs for their own employment situations. 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 environmental/conservation education.

82:270. Special Problems in Science Education — 1-6 hrs.

Problems selected according to needs of students. Prerequisite: consent of the chairperson of the Science Education Faculty.

82:290. Trends in Science Education — 2 hrs.

Using both manual and computer search techniques, current science education literature is sought and critiqued. Trends are established. The seminar format is utilized. Prerequisite: consent of instructor.

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

84:012. Energy and Life — 3 hrs.

Energy as studied as the driving force for both living and non-living processes on earth. The emphasis is upon energy flow within the ecosystem including its capture in photosynthesis, its drive of biogeochemical cycling and cellular metabolism. No credit for majors and minors. Prerequisite: a student must have satisfied UNI's high school course requirements in English and mathematics or completed developmental courses in these academic areas before registering for Sphere I courses.

84:014. Continuity of Life — 3 hrs.

Information flow within individual organisms between species and through time. A study of gene structure and function is the primary focus. Applications are made to medical, ethical and social dilemmas of humans as well as to normal functioning of animals and plants. No credit for majors and minors. May be taken with 84:015 to fulfill the General Education laboratory requirement. Prerequisite: must have completed Sphere I of General Education program.

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.

84:028. Biosphere: Life and Its Interrelationships — 3 hrs.

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 consent of department head.

84:031. Anatomy and Physiology I — 4 hrs.

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 consent of department head. No credit on biology majors or minors. Discussion, 3 periods; lab, 2 periods.

84:032. Anatomy and Physiology II — 4 hrs.

A continuation of 84:031. For students in allied health fields or other university approved programs. Others must have consent 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.

84:089. Seminar — 1 hr.**84:103(g). 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. Prerequisites: 84:052; junior standing.

84:104(g). Iowa Conservation Problems — 3 hrs.

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.

84:106. Comparative Anatomy of the Vertebrates — 4 hrs.

Consideration of the origin of vertebrates and a comparison of the anatomy of the organ systems of the classes. Discussion, 2 periods; lab., 4 periods. Prerequisite: 84:052.

84:112(g). Invertebrate Zoology — 4 hrs.

Anatomy and physiology of type forms of the invertebrate phyla. Discussion, 2 periods; lab., 4 periods. Prerequisites: 84:052; junior standing.

84:114. Animal Physiology — 4 hrs.

Organ system functions in animals; physical and chemical basis for functions; comparison of organ system function especially in vertebrates. Discussion, 3 periods; lab., 2 periods. 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 Diversity and Evolution — 3 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.

How plants function: the uptake and use of water and materials, synthesis and transport of organic compounds, growth and development, and responses to the physical environment. Lecture, 2 periods; lab., 5 periods. Prerequisites: 84:052; 86:048 or 86:070; 80:040 or equivalent.

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. Discussion, 2 periods; lab., 4 periods. Prerequisites: 84:052; junior standing.

84:128(g). Cell Biology — 3 hrs.

Fundamental physiological processes of cellular function with emphasis on metabolism, respiration, photosynthesis, and cellular membranes. Discussion, 2 periods; lab., 3 periods. Prerequisites: 84:052; either 86:050 or 86:120 and 86:121.

84:131(g). Animal Behavior — 4 hrs.

Mechanisms, adaptive significance, evolution, and ecology of behavior and sociality. Prerequisites: 84:052 and junior standing.

84:132(g). Parasitology — 4 hrs.

Morphology, ecology, and life history of parasites important to man and other animals. Discussion, 2 periods; lab., 4 periods. Prerequisite: 84:112 or consent of instructor.

84:135(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).

84:138. Human Physiology — 3 hrs.

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.

84:139. Human Organ Systems' Interactions — 3 hrs.

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.

84:140(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; 80:040 or equivalent.

84:142(g). Organic Evolution — 3 hrs.

Conceptual overview of evolutionary theory, mechanisms of the evolutionary process, speciation and major evolutionary steps. Prerequisite: 84:140.

84:146(g). Developmental Biology of Animals — 4 hrs.

The major concepts and central questions of animal development and its controlling mechanisms. Laboratory will emphasize experimental inquiry as well as developmental anatomy. Discussion, 3 periods; lab., 2 periods. Prerequisites: 84:052; junior standing or consent of instructor.

84:148(g). Human Genetics and Human Evolution — 3 hrs.

The genetics and evolution of humans, including human reproductive processes, single gene and polygenic human traits, sociobiology, and human evolution, including a description and interpretation of fossil hominoids and behavioral and cultural evolution. Prerequisites: 84:052; junior standing or consent of instructor.

84:151(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 consent of department.

84:154(g). Limnology — 3 hrs.

An introduction to the geological, physical, chemical and biological factors that interact to determine the functional characteristics of inland waters. Prerequisite: 84:168 or equivalent; 86:048 or 86:070.

84:155(g). Ecotoxicology — 4 hrs.

A detailed overview of ecological and toxicological aspects of environmental pollution emphasizing the responses of populations, communities, and ecosystems to contaminants. Traditional biomonitoring and toxicity testing methods, state-of-the-art concepts and methodologies will be covered. Lecture/discussion, 3 periods; lab., 3 periods. Prerequisite: 84:154 or equivalent.

84:157(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: 80:046 or equivalent, junior-level standing and two biology courses beyond the introductory sequence, or consent of instructor.

84:160. Field Zoology of Vertebrates — 4 hrs.

Identification and natural history of Iowa vertebrates. Field trips emphasized. Discussion, 2 periods; lab. and field work, 4 periods. Prerequisite: 84:052.

84:166(g). Plant Systematics — 4 hrs.

Classification and identification of vascular plants, with emphasis on evolution of species and larger groups. Discussion, 2 periods; lab and field work, 4 periods. Prerequisites: 84:052, junior standing or consent of department head.

84:168. Ecology — 3 hrs.

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.

84 Biology/86 Chemistry

84:170. Entomology — 3 hrs.

Introduction to the biology of insects. Discussion, 2 periods; lab., 2 periods. Prerequisite: 84:052.

84:172. 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.

84:176(g). Community Ecology — 3 hrs.

Investigation of the origin, structure, function, dynamics, and evolution of communities with emphasis upon their floral components. Discussion, 2 periods; lab., 2 periods. Prerequisite: 84:168.

84:177(g). Population Ecology — 3 hrs.

Covers the genetics, evolution, structure, and dynamics of populations and the interactions of populations. Emphasis will be given to animal population ecology. Lecture/discussion, 2 periods; lab., 2 periods. Prerequisite: 84:168 or equivalent.

84:180(g). Management of Recreational Land — 3 hrs.

Ecological principles applied to design, development and management of natural areas, parks, and wildlands. Discussion, 2 periods; lab., 2 periods. Prerequisites: 84:103 and 84:168.

84:181. Investigations in Life Science — 4 hrs.

Provides an introduction to significant concepts and theories of life science and a model of effective teaching strategies related to the elementary school level. Topics include diversity and classification, structure and function from cellular to organism level, human biology, and plant systems. Discussion and/or lab, 5 periods. Prerequisites: 80:030; 82:031; 82:032. *Included with Science Ed. materials.*

84:182. Current Environmental Issues — 2 hrs.

Investigation and discussion of selected current environmental issues of national and local significance. The scientific and technological basis of each issue will be examined in its socio-economic context and projected to the future. Discussion, 2 periods. Prerequisite: 84:103 or consent of instructor.

84:184. Interpretive Programs Techniques for Naturalists — 3 hrs.

Techniques for development and delivery of interpretive programs, recruiting public participation, fundraising, writing proposals, organization of federal, state and local park agencies, budgeting, coordination of citizen support groups. Lecture/discussion, 3 periods. Prerequisite: 84:103.

84:185. Readings in Biology — 1-3 hrs.

Independent readings in biology from a selected list approved in advance. Maximum of 3 hours for biology major or minor. Prerequisite: consent of department.

84:189. Seminar — 1 hr.

84:190. 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 and 9 hours of biology credit beyond the introductory sequence or equivalent recommended. Prerequisite: consent of department.

84:193(g). Current Curricula in Biology — 2 hrs.

Philosophy, methods, and materials of high school biology curricula and curriculum development. Examination and evaluation of current curricular materials for secondary biology and life science classes. Evaluation techniques for teaching in biology. Prerequisites or corequisites: 82:190 and 82:196.

84:195. Internship/Field Experience — 1-10 hrs.

Supervised work experience in approved work situation. Offered only on credit/no credit basis. Prerequisite: consent of department.

84:196. Interpretive Programs Seminar — 2 hrs.

Designed to follow the internship experience during the last two weeks of the same semester. Comparison and assessment of interpretive programs including goals, objectives, dissemination techniques and effects on visitor groups. Corequisite: 84:195.

84:197. Undergraduate Practicum in Biology Teaching — 1 hr.

Practical experience in teaching. Participation in laboratory and instructional assistance under direct supervision of faculty member. Prerequisite: consent of department.

84:198. Independent Study.

84:202. 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.

84:220. Advanced Plant Morphology — 4 hrs.

Life histories of representatives of the plant phyla. Morphological and physiological advancements which have resulted in the gradual evolution of flowering plants. Discussion, 2 periods; lab. and field work, 4 periods. Prerequisite: 84:120.

84:225. Aquatic Biology — 4 hrs.

The biological, physical and chemical aspects of aquatic environments with special emphasis on collection and identification of aquatic organisms. Discussion, 2 periods; lab. and field work, 4 periods. Prerequisites: 84:168; 86:048 or 86:070.

84:230. Special Problems in Biology — 1-6 hrs.

Credit determined at registration. (Problems in biology other than those for theses or in regular curricular offerings.) Prerequisite: consent of department; 84:292 recommended.

84:255. Plant Physiological Ecology — 3 hrs.

Interactions between higher plants and the physical environment, including energy, water and carbon balances, and responses to various stresses. Physiological mechanisms of both crop and natural ecosystems throughout the world. Lecture, 3 periods. Prerequisites: 84:122; 80:040 or equivalent.

84:257. Biometry — 2 hrs.

Experience in relating experimental design to appropriate quantitative data analysis and hypothesis interpretation. Practical application to include use of BMDP computerized statistical package. Students will use their undergraduate experience in biology to design and analyze experiments. The course will culminate with each student preparing a proposed experimental design and data analysis suitable for completion as a thesis or research project. Discussion, 1 period; lab., 2 periods. Prerequisites: bachelor's degree in biology; 84:157 (concurrent enrollment acceptable) or equivalent; or consent of instructor.

84:289. Seminar — 1 hr.

84:292. Research Methods in Biology — 2 hrs.

Development and formal preparation of a biological research proposal; emphasis upon experimental design, literature review, and manuscript style. Discussion, 3 periods.

84:297. Practicum.

84:299. Research

86 Chemistry

86:010. 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 hours credit. No credit for student with credit in any college chemistry course. Prerequisite: a student must have satisfied UNI's high school course requirements in English and mathematics or completed developmental courses in these academic areas before registering for Sphere I courses.

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.

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, 3 periods; lab, 3 periods. For preprofessional students and science majors with a special interest in chemistry. Prerequisite: 86:044 or equivalent.

86:061. Applied General Chemistry — 4 hrs.

Principles of chemistry as applied to the home and to allied health fields. For students in design, family and consumer sciences and allied health programs. Discussion, 3 periods; lab., 3 periods. No credit for student with credit in 86:044.

86:063. Applied Organic and Biochemistry — 4 hrs.

For students in design, family and consumer sciences and allied health programs. Discussion, 3 periods; lab., 3 periods. No credit for a student with credit in 86:120. Prerequisite: 86:048 or 86:061 or 86:070.

86:070. 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: consent of department.

86:120. Organic Chemistry I — 3 hrs.

Fundamentals of organic chemistry. For majors in the sciences and those preparing for medically related careers. Discussion, 3 periods. Prerequisite: 86:048 or 86:070.

86:121. Organic Chemistry Laboratory I — 2 hrs.

Purification and identification techniques as well as some representative organic reactions. Lab., 6 periods. Prerequisite or corequisite: 86:120.

86:123. Organic Chemistry II — 3 hrs.

Continuation of 86:120. Discussion, 3 periods. Prerequisite: 86:120.

86:125. Organic Chemistry Laboratory II — 2 hrs.

Continuation of 86:121. Preparation and functional group analysis. Lab., 6 periods. Prerequisites: 86:120; 86:121. Prerequisite or corequisite: 86:123.

86:132. Quantitative Analysis — 4 hrs.

Theory, technique, and calculations of volumetric and gravimetric analysis. Statistical treatment of data. Classical analytical procedures supplemented by instrumental techniques. Discussion, 2 periods; lab., 6 periods. Prerequisite: 86:048 or 86:070.

86:136(g). Applied Instrumental Analysis — 4 hrs.

Applications of instrumental techniques to quantitative analysis, including principles and techniques of instrumentation in areas of chromatography, spectrophotometry, and electrochemistry. Discussion, 2 periods; laboratory, 6 periods. Prerequisites: 86:063 or 86:120; 86:132; junior standing (no credit toward majors requiring 86:137 and no credit for students with credit in 86:135 or 86:137).

86:137(g). Instrumental Analysis — 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. Discussion, 2 periods; lab., 6 periods. Prerequisites: 86:120; 86:132; 86:140. Prerequisite or corequisite: 86:141. (Formerly 86:135g.)

86:138(g). Environmental Chemistry — 3 hrs.

A study of the sources, reactions, and transport of environmental pollutants in air and water. Laboratory work covers the analysis of specific chemical species in environmental samples. Discussion, 2 periods; lab., 3 periods. Prerequisites: 86:132; junior standing or consent of department.

86:140(g). Physical Chemistry I — 3 hrs.

Application of the laws of physics to chemical phenomena. Discussion, 3 periods. Prerequisites: 80:060, 88:056 or 88:131, or consent of instructor; junior standing or consent of department.

86:141(g). Physical Chemistry II — 3 hrs.

Continuation of Physical Chemistry I which is prerequisite. 80:061 is recommended as a prerequisite, but may be taken concurrently. Discussion, 3 periods.

86:142(g). Principles of 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: 80:046; 86:048 or 86:070; junior standing or consent of department. 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 should 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 consent of department.

86:145(g). Inorganic Chemistry II — 3 hrs.

Application of physical chemical principles to the study of inorganic systems. Discussion, 3 periods. Prerequisites: 86:120; 86:140. Prerequisite or corequisite: 86:141.

86:147(g). Inorganic Chemistry Laboratory — 1-3 hrs.

Preparation, analysis, and study of the properties of inorganic compounds. Prerequisite: 86:137. 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.

86:161(g). Organic Structure Analysis — 3 hrs.

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 consent of department head. Prerequisite or corequisite: 86:141.

86:193(g). Current Curricula in Chemistry — 2 hrs.

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.

86:220. Advanced Organic Chemistry — 3 hrs.

Product analysis, kinetics, and mechanism of organic reactions. Discussion, 3 periods. Prerequisites: 86:123; 86:141.

86:230. Coordination Chemistry — 3 hrs.

Lecture course on various aspects of coordination compounds. Prerequisite: 86:141; 86:144 or 86:145.

86:235. Molecular Structure — 3 hrs.

Lecture course on wave mechanics as applied to atomic and molecular structure, with emphasis on experimental spectroscopy. Prerequisite: 86:141.

86:240. Special Problems in Chemistry — 1-6 hrs.

Credit determined at registration. Problems selected according to needs of students. Prerequisite: consent of department.

86:242. Advanced Analytical Chemistry — 3-4 hrs.

A theoretical and practical consideration of the problems of separation and measurements in analytical chemistry. Discussion, 3 periods; lab., 3 periods; lecture may be taken without the laboratory. Prerequisites: 86:134 or equivalent; 86:140; and consent 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 — 3-4 hrs.

Introduction to the Universe, the solar system, stars, and galaxies, including the apparent motions of bodies in the sky; the development of astronomy and its impact on humankind. Prerequisite: high school algebra and geometry; must have completed Sphere I of the General Education program.

87:011. Astronomy Laboratory — 1 hr.

Fundamentals of astronomical observation, the use of introductory astronomical instruments, and the application of charts and almanacs to finding one's way about the night sky. Prerequisites: consent of instructor and concurrent enrollment in 87:010.

87 Earth Science

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. No credit for those who have completed 87:121. 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, 3 periods; lab., 2 periods. Prerequisite: a student must have satisfied UNI'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. Discussion, 3 periods; lab., 2 periods. Prerequisite: 87:031 or equivalent.

87:036. Spaceship Earth — 3 hrs.

The geologic environment: its dynamic nature, and interrelationship with humanity. Examines availability and utilization of energy, mineral, and water resources and the relationship of resource utilization to the natural environment. Attention given to geologic hazards; e.g., earthquakes, volcanoes, landslides, and floods. Discussion, 3 periods.

87:109(g). Fundamentals of Astronomy — 3 hrs.

Basic principles of astronomy intended primarily for teachers; no credit for students with credit in 87:010 or its equivalent. 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 consent of department.

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 or other topics of current interest. Topics to be listed in Schedule of Classes. May repeat for credit on a different topic. Application to major requires consent of department head. Prerequisite: junior standing or consent of instructor.

87:115(g). Volcanology — 3 hrs.

Origin, classification, eruptive mechanisms and hazards of volcanoes, and related phenomena. Discussion 2 periods; lab., one 2-hour period. Prerequisites: 87:031; junior standing or consent of department.

87:121(g). Meteorology — 4 hrs.

Topics of weather observation and prediction; physical basis of cloud formation; radiational heating and cooling; the Earth's energy budget; wind circulation; precipitation processes; storm systems; maps and charts. Discussion, 3 periods; lab., 2 periods. Prerequisites: 86:044; 88:054; junior standing or consent of department.

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 consent of department.

87:128(g). Fundamentals of Geology — 4 hrs.

Basic principles of physical and historical geology. Prerequisite: consent of department.

87:129(g). Structural Geology — 4 hrs.

The origins and mechanics of rock deformation. Description and analysis of structural features. Field work where appropriate. Discussion, 2 periods; lab., two 2-hour periods. Prerequisites: 87:031; 87:035; junior standing or consent of instructor.

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.

87:131. Systematic Mineralogy — 2 hrs.

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 97:031 or equivalent; junior standing or consent of department.

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. Discussion, 2 periods; lab., two 2-hour periods. Prerequisite: 87:035; or corequisite: 87:035 and consent of instructor.

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 97:031 or equivalent; junior standing or consent of department.

87:142(g). Igneous Petrology — 4 hrs.

Description, classification, and genesis of igneous rocks. Discussion, 2 periods; lab., two 3-hour periods. Prerequisites: 80:060; 87:135.

87:143(g). Geochemistry — 4 hrs.

Distribution of elements in the Earth and the chemical laws governing those distributions. Prerequisite: 86:048 or 86:070.

87:154(g). Observational Astronomy — 2 hrs.

The use of astronomical instruments, (telescopes, cameras, and spectroscopes), along with observing aids, (charts, catalogs, and ephemerides), for the collection, analysis, and interpretation of astronomical data. Prerequisites: junior standing; 87:010; and consent of department.

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. Discussion, 2 periods. Prerequisite: junior standing or consent of department.

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. 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 maximum of 6 hours. Prerequisite: consent of department.

87:181. Investigations in Earth Science — 4 hrs.

Provides an introduction to significant concepts and theories of earth science and a model of effective teaching strategies related to the elementary school level. Topics include geologic materials and the processes acting on them and fundamentals of earth history, weather, and astronomy. Discussion and/or lab, 5 periods plus arranged. Prerequisites: 80:030; 82:031; 82:032.

87:185(g). Seminar — 1-2 hrs.

Topics in astronomy, earth science, geology, or meteorology; emphasis on readings from original sources and current summary works. May be repeated for a maximum of four hours. Prerequisite: consent of department.

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: consent of department.

87:191. Undergraduate Practicum — 1-2 hrs.

Practical experience in teaching; participation in laboratory and instructional assistance under direct supervision of staff member. Prerequisites: junior or senior standing; consent of instructor and department head. May be repeated for credit to maximum of 4 hours.

87:280. Problems in Earth Science — 1-4 hrs.

Problems and area of study selected according to needs of students. Prerequisite: consent of department.

87:292. Research Methods in Earth Science — 3 hrs.

Methods and evaluation of research in the earth sciences. Individual exploration of a possible research or thesis project in the earth sciences. Discussion, 3 periods.

87:297. Practicum.**87:299. Research.**

88 Physics

88:011. Conceptual Physics — 4 hrs.

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 UNI'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 UNI's high school course requirements in English and mathematics or completed developmental courses in these academic areas before registering for Sphere I courses.

88:018. The Physics of Musical Sounds — 3 hrs.

Production, transmission, reception of sound; analysis and synthesis of complex musical tones. Applications to musical instruments, acoustics and electronic reproduction and amplification. Some background in music and/or audio systems desirable. Discussion, 2 periods; lab., 2 periods. Does not apply toward a physics major.

88:040. Elementary Holography — 1 hr.

Students make and view holograms with light from laser. Suitable for students with little or no background in physics. Presents elementary theory of holograms and laser light; emphasis on readily applied information and techniques. May not apply toward a physics major. Nine-week course. Discussion, 1 period; lab., 2 periods.

88:052. Principles of Physics — 4 hrs.

Topics in mechanics, fluids, heat and electricity with applications. For students in industrial and allied health fields. Does not apply toward a physics major or minor. No credit given for a student with credit in 88:054 or 88:056. Discussion, 3 periods; lab., 2 periods. Prerequisite: working knowledge of algebra and elementary trigonometry.

88:054. General Physics I — 4 hrs.

Basic principles and interrelationships of matter, motion, and energy, including topics from classical and modern physics. Discussion, 3 periods; lab., 2 periods. Prerequisite: working knowledge of algebra and trigonometry.

88:056. General Physics II — 4 hrs.

Continuation of General Physics I. Discussion, 3 periods; lab., 2 periods. Prerequisite: 88:054.

88:060. Experiments in Physics I — 1 hr.

A laboratory to accompany 88:130 for students who have not taken 88:054. Prerequisite or corequisite: 88:130.

88:061. Experiments in Physics II — 1 hr.

A laboratory to accompany 88:131 for students who have not taken 88:056. Prerequisite or corequisite: 88:131.

88:110. Engineering Calculations — 2 hrs.

Fundamentals of calculations in engineering and applied physics: arithmetic calculations and dealing with round-off error; units and dimensional analysis; graphical analysis; data reduction; approximate solution of equations; economic calculations. Prerequisite: 88:054 or 88:130. Prerequisite or corequisite: 80:048 or 80:060.

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 towards an undergraduate or graduate physics major. Prerequisites: 88:056; junior standing.

88:130. Physics I for Science and Engineering — 4 hrs.

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 88:054. Prerequisite or corequisite: 80:060. (Students without credit in 88:054 and requiring a laboratory should enroll in 88:060 concurrently.)

88:131. Physics II for Science and Engineering — 4 hrs.

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: 80:061. (Students without credit in 88:054 and requiring a laboratory should enroll in 88:060 concurrently.)

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: 80:048 or 80:061; 88:056 or 88:131; junior standing or approval 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.

88:137(g). Physics III - Modern Physics — 4 hrs.

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(g). 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 approval of department.

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: 80:061; 88:054 or 88:060; 88:130.

89 Biology at Lakeside Laboratory

88:150(g). Computational Physics — 3 hrs.

An advanced undergraduate course on the computer simulation and analysis of physical systems with an emphasis on those which are difficult or impossible to understand by traditional mathematical analysis, such as nonlinear systems which exhibit chaotic behavior. Introductory case studies are followed by individual projects. Prerequisites: 80:149; 88:131; 88:137 or approval of instructor.

88:152(g). Electronics I — 4 hrs.

Basic d.c. and a.c. circuits, electrical measurements, power supplies, transistor circuits, operational amplifier circuits. Discussion, 2 periods; lab., 4 periods. Prerequisites: 88:056; junior standing or approval of department.

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 approval of department.

88:157(g). Fundamentals of Physics I — 4 hrs.

Basic principles of mechanics, heat, and sound. Enrollment limited to graduate students other than physics majors. Discussion, 3 periods; lab., 2 periods. Prerequisites: working knowledge of algebra and trigonometry; approval of department.

88:158(g). Fundamentals of Physics II — 4 hrs.

Basic principles of electricity, magnetism, light, and modern physics. Enrollment limited to graduate students other than physics majors. Discussion, 3 periods; lab., 2 periods. Prerequisites: 88:157 or equivalent; approval of department.

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 Pockel's cell; spatial and temporal modes of lasers. Corequisite: 88:161.

88:161(g). Optics — 3 hrs.

Theory of lenses, optical systems, Fraunhofer and Fresnel diffraction with applications to holography, electromagnetic theory of light, polarization, absorption, scattering and dispersion, fiber optics. Prerequisites: 88:131; 88:140. Corequisite: 88:160.

88:166(g). Mechanics — 4 hrs.

Vector analysis, particle dynamics, dynamics of a system of particles. Motion of a particle in a central force field. Collision problems. Rigid body motion. Lagrange's equations. Theory of vibrations. Mathematical methods developed as needed. Prerequisites: 80:149; 88:131.

88:167(g). Electromagnetic Fields — 4 hrs.

Electrostatic fields and boundary value problems. Dielectric materials. Magnetic fields. Magnetic materials. Electromagnetic induction. Maxwell's equations and their applications. Mathematical methods developed as needed. Prerequisites: 80:149; 88:131.

88:170(g). Solid State Physics — 3 hrs.

Molecular binding; band theory of solids; electrical, thermal, and magnetic properties; imperfections; semiconductors; p-n junctions, and transistors. Prerequisite: 88:137. Corequisite: 88:171.

88:171(g). Solid State Physics Laboratory — 1 hr.

Prerequisite: 88:138. Corequisite: 88:170.

88:172(g). Introductory Quantum Mechanics — 4 hrs.

Solution of Schrodinger equation for several systems. Super-position of states. Matrix formulation. Physical interpretations. Prerequisites: 80:149; 88:137; 88:166; or approval 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.

88:180. Undergraduate Research in Physics — 1-6 hrs.

Research activities under direct supervision of sponsoring staff members or at a national laboratory. Prerequisites: approval of department and at least an overall 2.50 grade point average in all courses applied towards a B.S. physics major and taken to date. Should normally be taken during the senior year. Successful completion of the research experience requires both a written and oral report.

88:184. Internship in Applied Physics — 1-3 hrs.

Departmentally approved work in applied physics (at 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:

approval of department and at least an overall 2.50 grade point average in all courses applied towards a B.S. applied 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: approval of department.

88:189(g). Readings in Physics — 1-3 hrs.

Readings/problems in areas of physics (or related interdisciplinary areas) not normally covered in other courses. Maximum of 3 hours may be applied to a physics major or minor. Prerequisite: approval of department.

88:193(g). Current Curricula in Physics — 2 hrs.

Philosophy, methods, materials, and evaluation techniques for high school physics. Discussion, 2 periods. Prerequisite: 8 hours of physics or approval of instructor. Prerequisite or corequisite: 82:190.

88:250. Special Problems in Physics — 1-6 hrs.

Credit determined at registration. Problems selected according to needs of students. Prerequisite: approval of department.

88:290. Research.

89 Biology at Lakeside Laboratory

The following courses are regularly scheduled at Lakeside Laboratory by staff from the three Regents institutions. Enrollment is limited and permission of the instructor is required for all courses. Registration may be for undergraduate or graduate credit. Visiting staff may extend the course work offerings in particular summers. For current information, see the annual Iowa Lakeside Laboratory Bulletin usually available from the UNI Department of Biology after February 15 each year. Numbers within parentheses are the Lakeside Laboratory numbers.

89:101(g) (L:101). Field Biology — 5 hrs.

Natural history and principles of ecology of the aquatic and terrestrial ecosystems of the area, including basic taxonomy of the native fauna and flora. Includes field and laboratory techniques. Individual projects included.

89:103(g) (L:103). Aquatic Ecology I — 5 hrs.

Survey of local aquatic plants and animals and of aquatic habitats including environmental and community analysis. Emphasis on field work and appropriate methods.

89:104(g) (L:104). Aquatic Ecology II — 5 hrs.

Project work as continuation of 89:103.

89:105(g) (L:105). Plant Taxonomy — 5 hrs.

Basic principles of classification and evolution of vascular plants. Taxonomic tools, techniques and the native flora is explored; includes field collections and group projects. Not to be taken by those with credit in 84:166.

89:108(g) (L:108). Protozoology — 5 hrs.

Biology of the protozoa; emphasis on morphology, physiology, systematics, and development of free living and parasitic forms. Collection, culture, and classification of local specimens; experimental work to be included. No credit for those with credit in 84:130.

89:109(g) (L:109). Freshwater Algae — 5 hrs.

Laboratory examination of collections made daily by class in Iowa Lakes Region; correlation made by student of text description with observations of living materials.

89:118(g) (L:118). Field Entomology — 5 hrs.

Introduction to entomology with emphasis on methods of collecting and classifying insects, and on their natural history. Reference collections will be made with classification to order and family. No credit for those with credit in 84:170.

89:119(g) (L:119). Field Biology of Lower Green Plants — 5 hrs.

Field and laboratory investigation of mosses, liverworts, club mosses, quillworts, horsetails, and ferns. Many of these primary mesic plants have their western limits in the variety of habitats in Iowa.

89:207 (L:107). Helminthology — 5 hrs.

Structure, life cycles and host parasite relationships of representative helminths; methods of collecting, preserving, mounting, and identification; experimental life cycles, methods of studying living materials, special techniques for research in helminthology.

89:210 (L:110). Field Invertebrate Zoology — 5 hrs.

Biology of invertebrates with emphasis on local fresh-water and terrestrial forms, their structure, systematics, and behavior. Methods of collecting, culture, preserving, identifying, emphasis on study of living material. For students with background in invertebrate zoology.

89:215 (L:115). Field Mycology — 5 hrs.

Identification and classification of the common fungi. Techniques for identification, preservation, and culture.

89:217 (L:117). Ecology and Systematics of Diatoms — 5 hrs.

Field experience in study of fresh-water diatoms from a variety of habitats; environmental factors affecting growth and distribution; techniques in collection and preparation of diatom samples.

89:224 (L:124). Aquatic Plants — 5 hrs.

Field analysis of aquatic and paludal vegetation; morphology, breeding systems and identification based on vegetative characteristics.

89:299 (L:111; L:112). Research.

90 Social Science

90:020. 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.

90:030. 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 peace research with emphasis on proposed solutions to problems of war and violence in modern society.

90:070. Computers in the Social and Behavioral Sciences — 3 hrs.

Overview of computer applications in the Social and Behavioral Sciences. Includes hands-on introduction to use of statistical packages, word processing, and elementary programming in a language (e.g., BASIC). Course examines a variety of special computer applications, including database management, simulation, graphics displays, and real-time data collection using microcomputers. No previous experience with computers is necessary.

90:190. The Teaching of the Social Studies — 3 hrs.

Prerequisite: 12 hours in social science. Ordinarily should precede student teaching.

90:199(g). Study Tour — 1-8 hrs.

Directed program of study abroad. Programs to Europe, Asia, Latin America, Middle East, and other world areas. Study of social, historical, economic, and/or political characteristics of other countries and cultures.

90:280. Social Science Seminar — 3 hrs.

May be repeated for a maximum of 6 hours. Prerequisite: consent of department.

90:297. Practicum.

90:299. Research.

92 Economics

92:020. Quantitative Methods for Business — 3 hrs.

Quantitative and qualitative aspects of problem solving and decision making. Includes: structuring and basics of decision making, classification, theory, functional relationships, marginal analysis, linear programming, and probability. Prerequisite: 80:072 or 80:092 or equivalent. (This course does not count toward the Economics major or minor or toward the Social Science major or minor.)

92:024. Economics for General Education — 3 hrs.

An overview of economics, including a look at how a market system functions and how national income, output and employment are determined. The focus is primarily (though not exclusively) on the U.S. economy. (No credit for students who have credit or are concurrently enrolled in 92:053 or 92:054. May not be used for credit on major or minor.)

92:053. Principles of Macro-Economics — 3 hrs.

Determining and measuring the level of national product; monetary and fiscal policies to stabilize the economy.

92:054. Principles of Micro-Economics — 3 hrs.

Determination of price by demand and supply; distribution of income. Prerequisite: 92:053.

92:070. Business Statistics — 3 hrs.

Application and interpretation of probability and statistics as applied to business problems; design of experiment, descriptive statistics, sampling, estimation, correlation and linear regression. Prerequisite: 80:072 or 80:092 or equivalent. (This course does not count toward the Economics major or minor or toward the Social Science major or minor.)

92:103(g). Intermediate Macro-Economic Theory — 3 hrs.

Intermediate level macro-economics. The determinants of aggregate demand, national product and employment; macro-economics objectives and policies. Prerequisites: 92:053; 92:054.

92:104(g). Intermediate Micro-Economic Theory — 3 hrs.

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.

92:120(g). Economics of Natural Resources — 3 hrs.

Allocation of non-renewable and renewable resources over time; energy resources, minerals, water, fisheries, along with the concept of growth in a finite environment. Prerequisites: 92:053; 92:054.

92:123(g). Environmental Economics — 3 hrs.

Allocative efficiency, environmental quality as a public good, pollution as an economic problem, and estimating an economic value for environmental (non-market) goods. 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.

92:136(g). International Economics — 3 hrs.

Comparative advantage, exchange rates, balance of payments, and trade policies. Prerequisites: 92:053; 92:054.

92:137(g). Comparative Economic Systems — 3 hrs.

Examination of the capitalistic and socialistic economies through the work of their defenders and critics. Prerequisites: 92:053; 92:054.

92:138(g). Soviet Economy — 3 hrs.

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: 92:053; 92:054; junior standing or consent of instructor.

92:150(g). Monetary Economics — 3 hrs.

Monetary theory, the supply of money, the demand for money, monetary policy, and current monetary issues. 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: 92:053; 92:054; junior standing or consent of instructor.

92:169(g). Introduction to Econometrics — 3 hrs.

Econometric techniques and the development of statistical techniques unique to the economics; econometric relationships derived in single and multivariate linear and non-linear regression analysis; use of statistical inference in econometric investigation with applications to the classical works of economic topics. Prerequisites: 92:053; 92:054; junior standing or consent of instructor.

92 Economics/94 Political Science

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.

92:260 Managerial Economics — 3 hrs.

Application of economic theory and methods to business and administrative decision making. Prerequisites: 92:053; 92:054; enrollment in the MBA program.

92:280. Seminar in Economics — 3 hrs.

92:285. Individual Readings — 1-3 hrs.

92:299. Research.

94 Political Science

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.

94:015. American Government in a Comparative Perspective — 3 hrs.

A comparison of contemporary political institutions, processes and ideas in the United States and other selected countries. (Political Science majors and minors cannot use this course to meet either their general education or major or minor requirements.)

94:018. Introduction to Political Analysis — 3 hrs.

The theory and practice of systematic political inquiry, including the philosophy of scientific inquiry, research design, elementary statistics, and data processing.

94:026. World Politics — 3 hrs.

Conflict and cooperation in world politics; current international issues and problem areas. (Political Science majors and minors cannot use this course to meet either their general education or major or minor requirements.)

94:112. Political Parties — 3 hrs.

Organization and operation of political parties and elections in the United States. Prerequisite: sophomore standing or consent of instructor.

94:124. International Relations — 3 hrs.

Basic factors affecting positions and policies of states and their leaders. Implementation of national policies. Contemporary power systems. Conflict resolution. Prerequisite: sophomore standing or consent of instructor.

94:125(g). International Conflict and Cooperation: North-South Dialogue — 3 hrs.

Analysis of political, social, and economic disparities and mutual interdependence between developing and developed nations; examination of the need for a new international economic order and issues of energy, food, raw materials, population, and transfer of technology. Prerequisite: junior standing or consent of instructor.

94:127(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). Russian Foreign Policies — 3 hrs.

Factors influencing the formulation and implementation of Russian foreign policies. Prerequisite: junior standing or consent of instructor.

94:129(g). Communist Political Thought — 3 hrs.

A comparative examination of the political ideas of selected communist political theorists. Prerequisite: junior standing or consent of instructor.

94:131. American State Politics — 3 hrs.

An analysis of the organization, functions and operation of state and local governments. Prerequisite: sophomore standing or consent of instructor.

94:132. Community Political Systems — 3 hrs.

Structure and functions of city government. Relation of the city to the state. Prerequisite: sophomore standing or consent of instructor.

94:134(g). Congressional and Administrative Policy Making — 3 hrs.

Congressional-Administrative-Presidential politics in the formulation and execution of public policy. Prerequisites: 94:014; 94:148; junior standing or consent of instructor.

94:135(g). Modern European Democracies — 3 hrs.

Political institutions, processes, and policies of Western European Democracies; emphasis on Great Britain, France, and 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-expanded rights, and law school methods.

94:148. Introduction to Public Administration — 3 hrs.

The place of public servants in the functioning of government and recent trends in the expansion of administration. Prerequisite: sophomore standing or consent of instructor.

94:149(g). Comparative Administration — 3 hrs.

Analysis of models and theories of comparative administration by adopting idiographic approach and explanation of differences in administrative behavior of different administrative systems. Prerequisite: junior standing or consent of instructor.

94:150(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). Complex Organizations in the Public Sector — 3 hrs.

Theories of the internal dynamics of complex public organizations and their role in the political milieu. Prerequisites: 94:014; 94:148; junior standing; or consent of instructor.

94:154(g). Legislative Process — 3 hrs.

An analysis of the functions, powers, organization, processes, and problems of legislative systems in a comparative framework. Prerequisite: junior standing or consent of instructor.

94:155(g). Environmental Policy 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 hours credit. With advance consent of instructor, undergraduate student may enroll for total of 4 hours credit which requires contracting for completion of original research project. Prerequisite: junior standing or consent of instructor.

94:156(g). Issues in Political Thought — 3 hrs.

Examination and analysis of one or more significant issues in political thought. Prerequisite: junior standing or consent of instructor.

94:157(g). Politics of the Soviet Leadership — 3 hrs.
Examination of Soviet leadership politics from the Russian Revolution to the present. Topical issues include succession politics, the influences 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; 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 socialism, liberalism, conservatism, and fascism. Prerequisite: junior standing or consent of instructor.

94:162(g). Chinese Government and Politics — 3 hrs.
The rise of communist movement in China, organizational principles of the communist party, the role of communist ideology, party and state structure, the role of the People's Liberation Army, and China's economic development strategy. Prerequisite: junior standing or consent of instructor.

94:163(g). Japanese Government and Politics — 3 hrs.
Post-war development of Japan in terms of its governmental structure, parliamentary system, roles of various parties, and its foreign policy. Prerequisite: junior standing or consent of instructor.

94:164. Russian Politics — 3 hrs.
Russian political institutions and processes in transition.

94:165(g). African Politics — 3 hrs.
Examination of African politics from a political economy perspective. Prerequisite: junior standing or consent of instructor.

94:168(g). Politics of South Asia — 3 hrs.
Parliamentary institutions and politics; political movements and independence; the parties; the politics of language, caste, and tribe; democracy and economic change; goals and styles of political leadership; religion and politics; problems of nation building; and current trends in the countries of this area. Prerequisite: junior standing or consent of instructor.

94:169(g). Politics of the Middle East — 3 hrs.
A comparative analysis of major Middle Eastern countries, the role of religion, elites, and military in the state and nation-building processes, Middle East in world affairs, modernization, technologicalization and political development. 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; 94:132; 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.

94:176(g). Methods of Public Policy Research — 3 hrs.
Applications of statistical techniques and computer analysis techniques to problems of public management. Prerequisites: 94:018; junior standing or consent of instructor.

94:180. Orientation to Fieldwork in Politics — 2 hrs.
Discussion with government officials, analysis of relations between the press and government, and experience using reference materials in law, administration, politics, and economics. Prerequisites: 15 hours of political science including 94:014 and 94:131 or 94:132; consent of department.

94:181. Internship in Politics — 3-8 hrs.
Student serves as intern with government official or in public or private agency. 1) Federal; 2) State; 3) Local; 4) Intergovernmental; 5) Legal; 6) Interest Group; 7) International; 8) Electoral. Prerequisites: 94:180; junior standing; political science major; consent of department.

94:182. Post-Intern Seminar — 3 hrs.
Debriefing for interns in politics emphasizing comparison of scholarly writings on politics with the intern's practical political or administrative experience. Prerequisites: 94:181; consent of department.

94:189(g). Readings in Political Science — 1-3 hrs.
Prerequisite: 12 hours in Political Science and consent of department. May be repeated only with consent of department.

94:198. Independent Study.

94:224. International Politics — 3 hrs.
Prerequisite: 94:124 or consent of instructor.

94:275. Research Methods for Politics and Policy — 3 hrs.
Logic of social science inquiry, research design, data collection techniques, applicable to study of politics and public policy. Prerequisite: one course in statistics or consent of instructor.

94:279. Internship in Politics — 3-6 hrs.
Student internship in one of eight types. 1) Federal; 2) State; 3) Local; 4) Intergovernmental; 5) Legal; 6) Interest Group; 7) International; 8) Electoral. Prerequisite: consent of department.

94:280. Seminar in Political Science — 3 hrs.

94:285. Individual Readings — 1-3 hrs.
May be repeated.

94:289. Seminar in Comparative Politics — 3 hrs.

94:289. Seminar in American Politics — 3 hrs.

94:289. Seminar in Political Thought — 3 hrs.

94:292. Research and Bibliography — 3 hrs.

94:299. Research.

95 Public Policy

95:205. Research Seminar in Public Policy — 1 hr.
Seminar on questions of public policy analysis. Changing topics, can be repeated.

95:210. Quantitative Techniques for Policy Research — 3 hrs.
The application of basic and advanced statistical techniques to problems of policy analysis. Prerequisite: 98:080; or equivalent.

95:215. Advanced Quantitative Techniques for Policy Research — 3 hrs.
The application of advanced statistical and decisional techniques to problems of policy analysis. Prerequisite: 95:210.

95:281. Internship in Public Policy — 4 hrs.
Field experience for students enrolled in the Master of Public Policy degree program. Students may be given credit for extensive career experience at the discretion of the program director. Prerequisites: 94:173; 94:275; 95:205; 95:210.

96 History

96:010. Introduction to the Study of History — 3 hrs.
Introduction to the nature and use of history, to historiography, and to the basic methods of historical research. Required of all history majors and must be taken immediately after major is declared.

96:014. United States History to 1877 — 3 hrs.
Events, factors, and personalities which shaped social, economic, and political development of the United States from settlement to the end of Reconstruction.

96:015. United States History since 1877 — 3 hrs.
End of Reconstruction period to the present, including economic, diplomatic, intellectual, political, and social factors.

96:054. Modern Europe to 1815 — 3 hrs.
Europe beginning with the Renaissance; development of the Reformation and the modern state (cultural, economic, and social problems of all Europe during the 16th-18th centuries).

96:055. Modern Europe since 1815 — 3 hrs.
European history from the Congress of Vienna to the present; includes movements of national unification in Italy and Germany, and cultural movements during the "Generation of Materialism." Origins of World War I and its impact on Europe, the legacy of World War I—the Fascist and Communist revolutions; World War II, and the era of the Cold War.

96:070. Latin America — 3 hrs.

Historical, political, social, and cultural elements that form the civilization of Latin America. No credit if student has credit in 78:140. May not be taken for credit on history majors or minors. (Same as 68:070)

96:101(g). History of Ancient Greece — 3 hrs.

Archeology of the Aegean and the Minoan-Mycenaean civilization; the Homeric period, the classical civilization of Greece to Alexander the Great and the Hellenistic age; the advent of the Romans. Prerequisite: junior standing or consent of instructor.

96:103(g). History of Ancient Rome — 3 hrs.

The Roman Republic, expansion of Roman rule, the Roman Empire, the decline and fall of the empire in the 5th century A.D. Compares the Romans as people with modern Americans. Prerequisite: junior standing or consent of instructor.

96:116(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.

96:134(g). United States Economic History — 3 hrs.

Efforts of the people to raise the standard of living, their means of livelihood, and the development of the national economy. Explores theory of economic growth. Prerequisite: junior standing or consent of instructor.

96:136(g). American Colonial History — 3 hrs.

Seventeenth- and 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.

96:138(g). United States Foreign Relations — 3 hrs.

Assessment of achievements and failures of United States diplomacy since 1776 and relationships of these to present and recent past. Prerequisite: junior standing or consent of instructor.

96:139(g). Civil War and Reconstruction — 3 hrs.

Causes of the Civil War, the nature of the conflict, and the short-range and 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.

96:144(g). History of American Thought — 3 hrs.

Historical examination of principal idea-systems which shaped the intellectual profile of American civilization. Prerequisite: junior standing or consent of instructor.

96:145(g). Religion in America — 3 hrs.

Prerequisite: junior standing or consent of instructor. (Same as 64:117.)

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.

96:149(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). Military History from Napoleon to the Present — 3 hrs.

A study of the causes and conduct of war and the impact of war on society, with emphasis on the twentieth century. Prerequisite: junior standing or consent of instructor.

96:155(g). Europe from the French Revolution to World War I — 3 hrs.

Emphasis on political unification, the economic, intellectual, and social impact of advances in science and technology, and the decline of the European concert leading to war in 1914. Prerequisite: junior standing or consent of instructor.

96:156(g). History of European Popular Culture — 3 hrs.

Examines various aspects of everyday life in European history, including work, leisure, diet, housing, health, sanitation, role of women, status of children, family life, popular festivals, fashions, fad, sports, and games. Prerequisite: junior standing or consent of instructor.

96:157(g). European Diplomacy from the Congress of Vienna to the Present — 3 hrs.

European diplomatic history from 1815 to the present, with emphasis on the twentieth century. 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 from World War I to the Present — 3 hrs.

A study of the impact of World War I, the rise of Communism and Fascism, the impact of World War II, and the European renaissance since 1945. Prerequisite: junior standing or consent of instructor.

96:161(g). Women in Modern European History — 3 hrs.

A history of all facets of women's experience (beginning about 1700) emphasizing their economic roles, position in the family, sexuality, and political struggles. Explores the sources of women's oppression and theories of liberation. 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.

96:163(g). History of the Jewish People — 3 hrs.

The broad sweep of Jewish history from its genesis to the present day, focusing on the interrelationship of Jewish civilization and the non-Jewish cultures of which it was a part. Prerequisite: junior standing or consent of instructor.

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). United States Legal History — 3 hrs.

A historical examination of selected issues in the relationships between law and society in American history. Topics covered include: law and the colonial family, legal aspects of the American Revolution, criminal law, law and economic development, and law and race. Prerequisite: junior standing or consent of instructor.

96:167(g). The American Legal Profession — 3 hrs.

A historical examination of the origins, development and present status of the American legal profession. Topics covered include: legal education, legal ethics, the formation and development of the ABA, and the legal profession and social reform. Prerequisite: junior standing or consent of instructor.

96:168(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 1648 — 3 hrs.

The idea of a unified German Empire and the political, social and religious forces which undermined it from the Middle Ages to the end of the Thirty Years War. Prerequisite: junior standing or consent of instructor.

96:172(g). History of Germany Since 1648 — 3 hrs.

Political, social, economic and cultural developments of Germany since the Peace of Westphalia, with emphasis on the nineteenth and twentieth centuries. Prerequisite: junior standing or consent of instructor.

96:174(g). History of Modern France — 3 hrs.

Surveys of cultural, economic and political history of France in the 19th and 20th centuries. Prerequisite: junior standing or consent of instructor.

96:175(g). Modern African History — 3 hrs.

Survey of 19th- and 20th-century sub-Saharan Africa including economic and social development, the 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.

96:176(g). Colonial Latin American History — 3 hrs.

Discovery, exploration, conquest and development of Colonial Latin America. Prerequisite: junior standing or consent of instructor.

96:177(g). History of the Caribbean — 3 hrs.

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 development of the Latin American States and their relations to the United States. Prerequisite: junior standing or consent of instructor.

96:181(g). Pre-Modern South 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: consent of department head; for the field of U.S. History, 9 semester hours in U.S. History; for each of the other fields, 9 hours in history other than U.S., which must include 3 hours related to the particular field to be studied.

96:192. Junior-Senior Seminar — 1-3 hrs.

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

96:193(g). Historians and Philosophy of History — 3 hrs.

A study of the methodology and philosophy of history, illustrated by the history of historical writing. Prerequisite: junior standing.

96:198. Independent Study.**96:225. History and U.S. Public Policy — 3 hrs.**

Use of history in policy-making; historical development of public policy in a specific area.

96:238. United States Diplomacy — 3 hrs.

Combines the lecture and readings-seminar approach in studying concepts and policies involved in the nation's diplomacy since the late 19th century.

96:280. Seminar in History — 3 hrs.

Offered in specially designed areas as indicated in Schedule of Classes.

96:285. Individual Readings — 1-3 hrs.

May be repeated. Prerequisite: consent of department head.

96:289. Seminar in United States Historiography — 3 hrs.

Seminar on major schools of interpretation of the American past, and a specific examination of the historiographical development of selected topics in American history.

96:289. Seminar in European Historiography — 3 hrs.

Readings and research seminar on the development of the Western tradition of critical historical scholarship and on the literature of selected topics, controversies, and problems of modern European history.

96:290. Historical Methods — 3 hrs.

Investigation into the problems confronting the historian and an analysis of the methods and techniques employed by the historian.

96:297. Practicum — 2 hrs.**96:299. Research.**

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.

97:026. 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. (Formerly 97:031.)

97:040. 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. (Formerly 97:025.)

97 Geography

97:061. Maps and Map Interpretation — 3 hrs.

Surveys the various types of maps available from both the perspective of map maker and user. Emphasis on reading, analysis and interpretation of information on maps.

97:070. Thematic Cartography — 3 hrs.

Application of cartographic principles and techniques in compiling thematic maps. Emphasis on cartographic production, and also includes essentials of computer mapping and map reproduction.

97:101. Economic Geography — 3 hrs.

Analysis of the location and spatial structure of economic activities in major world regions. May provide credit in Economics. Prerequisite: junior standing or consent of instructor. (Formerly 97:120.)

97:103. Geography of the Bible — 3 hrs.

A systematic and regional study of the Bible Lands. This course also investigates selected biblical events from a geographic perspective. Prerequisite: sophomore standing or consent of instructor. (Formerly 97:143.)

97:104. North American Cities — 3 hrs.

The principles of urban geography, including urban growth and change, structure and dynamics, and analysis and planning in North American cities. (Formerly 97:132.)

97:106(g). West European Cities — 3 hrs.

Principles of urban geography in the context of Western Europe. The major urban and metropolitan traditions of the European urban systems are studied in their historical, ideological, political, and economic context. Prerequisite: junior standing or consent of instructor. (Formerly 97:138g.)

97:111(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: 97:010 or 97:026 or 97:040; junior standing or consent of instructor. (Formerly 97:130g.)

97:114(g). Political Geography — 3 hrs.

Geographic factors in the origin, development, behavior, and interaction of states. Prerequisites: junior standing or consent of instructor. (Formerly 97:170g.)

97:116(g). Geopolitics — 3 hrs.

Classical and contemporary geopolitical theory; introduction to formal applications; consideration of geopolitical goals of specific states. Prerequisites: one previous 100-level course in social science and junior standing, or consent of instructor.

97:119(g). Population Geography — 3 hrs.

Patterns, models, and process of the spatial structure of population growth, distribution, and movement. Prerequisites: junior standing or consent of instructor. (Formerly 97:185g.)

97:121(g). Spatial Analysis for Business — 3 hrs.

Practical and theoretical use of geographic models and concepts in business. Includes locational analysis, site selection, market area analysis, and real estate evaluation. Prerequisite: junior standing or consent of instructor.

97:123(g). Spatial Demography — 3 hrs.

Concepts and methods of formal demographic analysis. Spatial and non-spatial models of demographic structure, population distribution, mobility, and projections. Prerequisites: a statistics course; junior standing or consent of instructor.

97:126(g). Soils — 3 hrs.

Classification and properties of soils and the environments/processes involved in soil development. Relationships between soils and landforms emphasized in lecture; description of soils emphasized in lab and on field trips. Field trips during lab time when weather permitting. Lecture 2 periods; labs, discussion, or field trips 2 periods. Prerequisites: 97:026 or 87:031; junior standing or consent of instructor. (Formerly 97:115g.)

97:127(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. (Formerly 97:110g.)

97:129(g). Rivers and Fluvial Landforms — 3 hrs.

Precipitation variability, floods, river channel morphology, floodplains and terraces, hillslope erosion, and effects of climatic changes and land use on rivers. Lecture 2 periods; labs and field trips 2 periods. Prerequisite: junior standing or consent of instructor. (Formerly 97:118g.)

97:131(g). Geography of the Quaternary period — 3 hrs.

An examination of the physical characteristics of the Quaternary period (the time of human occupation of the Earth). Includes geomorphic, paleobotanical, paleoclimatological approaches. Lecture, 2 periods; lab., 2 periods. Prerequisites: 97:026 or 87:031 or 87:035; junior standing or consent of instructor.

97:141(g). Regional Geography — 3 hrs.

Analysis of the physical, environmental, and demographic characteristics, and the social and cultural behaviors of a geographic region. This course may be repeated for credit for different regions. Prerequisites: junior standing or consent of instructor. (Formerly 97:150g.)

97:142(g). Geography of North America — 3 hrs.

The regional geography of North America including the nature of the physical landscape and environment, the historical and current patterns of settlement, the social and cultural systems, the demographic structures, and economic variations. Prerequisites: 97:010 or 97:040; junior standing or consent of instructor.

97:151(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. Prerequisite: junior standing or consent of instructor. (Formerly 97:140g.)

97:160(g). Quantitative Methods for Geographers — 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: a statistics course; junior standing or consent of instructor. (Formerly 97:146g.)

97:163(g). Aerial Photo Interpretation and Remote Sensing — 3 hrs.

Basic principles of photogrammetry. Emphasis on interpretation of physical and cultural phenomena on the earth's surface using imagery obtained through visual and non-visual sensors. Prerequisite: junior standing or consent of instructor.

97:164(g). Geographic Information Systems I — 3 hrs.

Fundamental concepts and operations of Geographic Information Systems with applications. Lectures are supplemented by computer based projects. Prerequisite: junior standing or consent of instructor.

97:168(g). Regional Analysis and Planning — 3 hrs.

Introduction to the processes, methods, and techniques of regional analysis and planning. Planning is seen as a political as well as a technical process. Prerequisites: a statistics course, junior standing or consent of instructor. (Formerly 97:135g.)

97:171(g). Issues in the Teaching of Geography — 3 hrs.

Strategies and methods for teaching geography and for incorporating a geographic perspective in social studies courses. Prerequisite: junior standing or consent of instructor.

97:174(g). Geographic Information Systems II — 3 hrs.

Technical issues in GIS and ways of implementing GIS as a decision support system for solving problems of a spatial nature in selected fields. Prerequisite: 97:164 or consent of instructor.

97:177. Internship in Geography — 1-3 hrs.

Practical experience in business, industry, or a government agency. May be repeated for a maximum of 3 credit hours. Offered only on an ungraded basis. Prerequisites: junior standing; 15 credit hours of geography course work at UNI; a GPA of 2.5; consent of department.

97:180. Senior Seminar in Geography — 3 hrs.

Specific topics are examined through the application of geographic principles and analysis. This is a capstone seminar. A research paper is required. Prerequisite: 21 hours of geography course work.

97:189. Readings in Geography — 1-3 hrs.

Prerequisite: consent of department head. A total of 3 hours can be applied on the geography major.

97:190(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. (Formerly 97:161g.)

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

Analysis of the various currents of thought concerning the nature, scope, and methodology of geography. Strongly recommended for those declaring an emphasis or major in geography. Prerequisite: junior standing or consent of instructor.

97:203. Field Methods — 3 hrs.

A survey of geographical field procedures and problems, including measurement techniques, observations, and mapping based on field trips. Lab., 2 three-hour sessions. Prerequisite: consent of department.

97:277. Internship in Geography — 1-3 hrs.

Practical experience in business, industry, or a government agency. May be repeated for a maximum of 3 credit hours toward degree requirements. Offered only on an ungraded basis. Prerequisites: at least nine (9) credit hours of geography course work at UNI; a GPA of 3.00; consent of department.

97:280. Seminar — 3 hrs.

Offered in specially designated areas as indicated in Schedule of Classes. If 6 hours of seminar are taken in the M.A. program, 3 hours must be in systematic geography.

97:285. Readings in Geography — 1-3 hrs.

Prerequisite: consent of department head.

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

98:021. Crime and Society: Introduction to Criminology — 3 hrs.

Basic issues and concepts in the study of crime. Classical, positivist, psychological and sociological theories of criminal behavior; empirical studies of crime. Special attention to issues of measurement and the relationship of crime to other social problems. Prerequisite: 98:058.

98:022. Criminal Justice System — 3 hrs.

The genesis, transformation, and day-to-day operation of criminal justice within our society; emphasis on interrelationships between specific stages in the crime-control process and the differences between U.S. and other criminal justice systems. Prerequisites: 98:058; sophomore standing.

98:045. American Racial and Ethnic Minorities — 3 hrs.

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 folkways and mores of each group will be given as well. (Same as 45:045.)

98:058. Principles of Sociology — 3 hrs.

A scientific approach to the analysis and understanding of culture, human groups and institutions, personality, self, and social control.

98:060. Social Problems — 3 hrs.

An analysis of the nature and range of social problems arising in modern industrial society. Consideration given to the conditions creating them and the methods by which society seeks to cope with them.

98:080. Statistics for Social Research — 3 hrs.

Introduction and application of statistical methods to problems in social research; classification and presentation of statistical data, measures of central tendency and variability, measures of relationships, linear correlation and regression, probability, hypothesis testing and statistical inference. Prerequisite: completion of the mathematics requirement for General Education or consent of instructor.

98:085. Research Methods in Social Relations — 3 hrs.

Introduction to basic research methods used in social research. Conceptualization and operationalization of research problems. Examination of various research designs used to collect data. Introduction to sampling, instrumentation, data processing, data analysis and report production. Prerequisite: 98:080.

98:090. Introduction to Social Psychology — 3 hrs.

Individuals and groups studied at multiple organizational levels. Theories concerning group interaction, communication, and personality development. Emphasis on substance of theories and evaluation of evidence supporting them. Prerequisite: 98:058 or consent of instructor.

98:100(g). Individual Behavior — 3 hrs.

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.

98:101(g). Collective Behavior — 3 hrs.

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.

98:105. The Family — 3 hrs.

The institutional aspects of family life. Prerequisites: 98:058; junior standing or consent of instructor.

98:111. The Rural Community — 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. Prerequisites: 98:058; junior standing or consent of instructor.

98:114(g). Industrial Sociology — 3 hrs.

The study of individual and organizational behavior in work and production. The structure and function of work groups and formal work organizations in changing industrial society. Prerequisites: 98:058; junior standing or consent of instructor.

98:116(g). Correctional Treatment: Theory and Practice — 3 hrs.

An examination of the evolution and development of correctional treatment in the United States, with special attention to the description and evaluation of programs in juvenile and adult corrections. Alternatives to the rehabilitative ideal are presented in the course, and students are expected to develop other treatment models. Prerequisites: 98:126; 98:127; junior standing or consent of instructor.

98:120(g). Evaluation of Social Programs — 3 hrs.

Examination and application of basic principles of program evaluation. Includes evaluation paradigms, approaches and models; context of evaluation (political and organizational factors); measurement and instrumentation; data and cost analysis; reporting, dissemination and utilization; professional issues (eg., standards and ethics). Prerequisites: 98:080; 98:085; 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. Prerequisites: 98:060; junior standing; or consent of instructor. (Same as 45:121.)

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 reaction to deviance; dynamics of labelling processes and examination of the social meaning of non-normative behavior. Prerequisites: 98:060 or 98:021; 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: 98:021; 98:022; 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: 98:021; 98:022; junior standing or consent of instructor.

98:127. Juvenile Delinquency — 3 hrs.

Types of juvenile delinquents, causes of delinquent behavior, social institutions and their effect upon delinquency, prevention, and control of delinquent behavior. Prerequisite: 98:021 or 98:022 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; junior standing or consent of the instructor.

98:129(g). Comparative Criminology — 3 hrs.

Criminology theory and practice is examined in a cross-cultural perspective. Prerequisites: 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: 98:021; 98:022; junior standing or consent of instructor.

98:132(g). Juvenile Justice — 3 hrs.

Examination of the history, philosophies, and structure of the juvenile justice system. Issues confronting legislators, the judiciary, and juvenile justice personnel are discussed in the context of the need to provide treatment and the protection of individual rights and liberty. Prerequisites: 98:021; 98:022 and 98:127 or consent of instructor.

98:135(g). Social Stratification — 3 hrs.

Origin, development and characteristics of social class and caste systems. Indices of class position, interaction between classes, social mobility, and theories of stratification. Prerequisites: 98:058; junior standing or consent of instructor.

98:138(g). Sociology of the Mass Media and Popular Culture — 3 hrs.

Social and economic constraints affecting the production of a variety of media and types of popular culture. Social use patterns and media effects on individuals and their social worlds. Special attention to portrayals of deviance. Prerequisites: 98:058 or 99:011; junior standing or consent of instructor.

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.

98:148(g). Environmental Sociology — 3 hrs.

Issues of resource depletion and environmental degradation examined from a socio-ecological perspective. Interaction between these problems and patterns of social organization, and impacts of these problems on quality of life are emphasized. Prerequisites: 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 relationships, multivariate analysis, and scale analysis techniques. Primary orientation to survey data in social sciences. Prerequisites: 98:080 or equivalent; junior standing or consent of instructor.

98:161(g). Multi-variate Techniques for Social and Behavioral Research — 3 hrs.

Principles of path analysis, model testing, problems in path analysis and causal inference; introduction to factor analysis (exploratory and confirmatory), standard operating procedure for the interpretation of factors; cluster analysis; discriminant analysis. Prerequisites: 98:160; junior standing or consent of instructor.

98:162(g). Politics, Law and Culture: Cross-Cultural 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.)

98:164(g). Cross-Cultural Perspectives on Education — 3 hrs.

Survey of education in selected cultures. A distinction will be made between the process of education and schooling. These processes will be examined and compared in pre-industrial, colonial/neocolonial and industrial societies. Prerequisites: 98:058 or 99:011; junior standing or consent of instructor. (Same as 99:164.)

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 cultural, biological and ecological factors in disease and health; including disease and evolution, folk healers, nonwestern medical systems and health care systems in the U.S. Prerequisites: 98:058 or 99:011; junior standing or consent of instructor. (Same as 99:168.)

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.

98:171(g). Theories of Sex and Gender — 3 hrs.

Survey of theoretical approaches to the study of sex and gender. Classical, structural, neo-Freudian, Marxist feminist, and radical approaches. Topics include work, family, religion, and sexuality. Prerequisites: 98:058 or 99:020 or 99:011 and junior standing or consent of instructor.

98:172(g). Sociology of Religion — 3 hrs.

Examination of the social bases of religious institutions; factors in religious evolution and change; comparative analysis of religious organizations and religious behavior; functions of religion in the social structure. Prerequisites: 98:058; junior standing or consent of instructor.

98:173(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.

98:174(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.)

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; senior standing; or consent of instructor.

98:176(g). Social Change — 3 hrs.

Nature of social change and its implications for personality and society. Prerequisites: 98:058; junior standing or consent of instructor.

98:178(g). Qualitative Research Methods — 3 hrs.

The development and application of the qualitative descriptive and analytic methods used in social science research. Prerequisites: 98:058 or 99:011 and junior standing or consent of instructor. (Same as 99:178.)

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.

98:181(g). Seminar in Criminology — 3 hrs.

Selected topics; provides opportunity to focus previous course work and knowledge on a special issue in criminology. Topic for specific semester listed in Schedule of Classes. Prerequisites: 15 semester hours in criminology and junior standing or consent of instructor. May be repeated for up to six hours of credit.

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 consent of department. Prerequisites: 9 hours in sociology and consent of department; junior standing or consent of instructor.

98:198. Independent Study**98:200. Contemporary Sociology Theory — 3 hrs.**

Description and analysis of the main currents in contemporary sociological thought; principal sociological theorists; major themes, schools, trends, issues, and debates in theory. Prerequisite: 98:170. Open to seniors with consent of department head.

98:201. Advanced Research Methodology — 3 hrs.

Relationship between theory and research, grand methodology; logic and philosophy of sociology, science and sociology; theory construction, formal models, explanation, prediction and cause; value freedom, objectivity and ideology. Prerequisite: 98:085. Open to seniors with consent of department head.

98:280. Seminar in Sociology — 3 hrs.

Seminars are offered in special topics: such as Sociological Theory, Deviant Behavior, Social Psychology, Social Stratification, Population, Sociological Research, Sociology of Religion, and others. The topic to be used for a specific semester will be listed in the Schedule of Classes. An advanced course in the specific area scheduled will be considered a prerequisite to that seminar. Enrollment in different topics is not limited, but a student should not enroll in two seminars on the same topic.

98:285. Individual Readings — 1-3 hrs.**98:297. Practicum.****98:299. Research.****99 Anthropology****99:010. Human Origins — 3 hrs.**

Introduction to the physical and prehistoric development of humankind, including primate and human evolution, modern races, and the archaeological cultures of the world.

99:011. Culture, Nature, and Society — 3 hrs.

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.

99:132. Native North America — 3 hrs.

Ethnographic survey of the sociocultural systems developed by Native Americans north of Mexico; emphasizes the relationships that exist among ecological factors, subsistence techniques, social organizations, and belief systems and the impact that interactions with European and U.S. societies had on Indian lifestyles. (Same as 68:132.)

99:136. Social Anthropology of India — 3 hrs.

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.

99:145. Research Experience in Anthropology — 1-3 hrs.

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.

99:148(g). Applied Anthropology — 3 hrs.

Considers application of anthropology in analyzing and addressing contemporary social problems. Topics include economic development, public health, ethnic relations and education. Prerequisites: 98:058 or 99:011; junior standing or consent of instructor.

99:151. Biomedical Anthropology — 3 hrs.

Human evolution and adaptation. Analysis of human fossils, human genetics, and present-day biological diversity. Prerequisite: 99:010 or consent of instructor.

99:152(g). Human Adaptation, Variability and Disease Patterns — 3 hrs.

Methods of determining similarities and differences in human populations. Anthropometric techniques to analyze blood groups, gene markers, osteology, dental patterns, and dermatoglyphics. Implications for evolution, adaptation and disease are presented. Prerequisites: 99:010; junior standing; consent of instructor.

99:153(g). Primate Behavior — 3 hrs.

Introduction to the social behavior and ecology of prosimians, monkeys and apes. Although laboratory and zoo studies will be covered, the emphasis will be on primate behavior in natural settings. Prerequisites: 99:010; junior standing or consent of instructor.

99:154(g). Sociobiology — 3 hrs.

Potential genetic advantages of different human behavior patterns. Includes seminar discussions and presentations on potential biological advantages to individuals of such traits as altruism, courtship, and rituals. Prerequisites: 99:010; junior standing and consent of instructor.

99:156(g). Sex and Gender in Cross-Cultural Perspective — 3 hrs.

An analysis of sexual beliefs and practices in the U.S. and other societies. Also emphasizes the cultural patterning of gender roles. Prerequisites: 99:011; junior standing or consent of instructor.

99:157(g). Ritual and Symbolism — 3 hrs.

A comparative approach to the study of ritual in socio-cultural contexts: Psychological, sociological, and cultural interpretations of ritual symbolism are considered based on case studies from selected non-Western cultures. The focus will be upon rites of passage, rites of reversal and rites of healing. Prerequisites: 98:058 or 99:011; junior standing or consent of instructor.

99:158(g). Cross-Cultural Perspective on Mental Illness — 3 hrs.

A cross-cultural approach to the identification and treatment of mental disorders. Topics will focus on (1) concepts of mental disorders and their relations to culture, (2) native and scientific etiologies of mental illness and their influence on diagnosis and treatment of deviant and abnormal behaviors, and (3) interaction of indigenous and Western therapeutic traditions. Prerequisites: 98:058 or 99:011; 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.

99:161(g). Religion, Magic, and Witchcraft — 3 hrs.

Anthropological understanding of behavior dealing with the supernatural; supernatural beliefs, practices, and movements throughout the world. Prerequisite: 99:011 or consent of instructor. (Same as 64:161.)

99:162(g). Politics, Law and Culture: Cross-Cultural Perspectives — 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.

99:164(g). Cross-Cultural Perspectives on Education — 3 hrs.

Survey of education in selected cultures. A distinction will be made between the process of education and schooling. These processes will be examined and compared in pre-industrial, colonial/neocolonial and industrial societies. Prerequisites: 98:058 or 99:011; junior standing or consent of instructor. (Same as 98:164.)

99:165. Underdevelopment, Development, and Change — 3 hrs.

Definitions and theories of underdevelopment applied to social formations of the Third World and subcultural groups of the United States. Considers poverty, peasant conservatism, development and change strategies. Prerequisite: 99:011 or consent of instructor.

99:166. Ethnic and Race Relations — 3 hrs.

Current problems relating to race and ethnicity in both underdeveloped and developed societies. Prerequisite: 99:011 or consent of instructor.

99 Anthropology

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 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 98:168.)

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.)

99:171(g). Archaeological Theory and Method — 3 hrs.

Theoretical and methodological approaches to archaeological research. Topics include history of archaeological research; formation of the archaeological record; current approaches to research design, data collection, artifact analysis, classification, quantitative and qualitative analysis, dating and inference. Prerequisites: 99:010; 99:011, and 3 hours of 100-level archaeology credit or consent of instructor.

99:172. Archaeological Fieldwork — 3-8 hrs.

Field school: introduction to field research techniques (survey, excavation, mapping), laboratory processing, and hypothesis testing. Conducted in the field. Prerequisites: 99:010 and consent of instructor.

99:174(g). Ethnographic Interviewing — 3 hrs.

Practical application of qualitative techniques in the Social Science interview; includes construction of descriptive questions, domain analysis, taxonomic and componential analysis. Prerequisites: 98:058 or 99:011; junior standing or consent of instructor. (Same as 98:174.)

99:176(g). Anthropological Theory — 3 hrs.

Major theoretical developments in anthropology, including both historical and contemporary schools and trends. Prerequisites: 99:011 and junior standing or consent of instructor.

99:178(g). Qualitative Research Methods — 3 hrs.

The development and application of the qualitative descriptive and analytic methods used in social science research. Prerequisites: 98:058 or 99:011 and junior standing or consent of instructor. (Same as 98:178.)

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.

99:184. Experience in Applied Anthropology — 3-6 hrs.

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 consent of department.

99:198. Independent Study.

▼ State Board of Regents

Officers of the Board:

Marvin A. Pomerantz, President
Des Moines
R. Wayne Richey, Executive Director
Des Moines

Members of the Board: Terms expire June 1993

Terms expire June 1995

Terms expire June 1997

John R. Fitzgibbon, Des Moines
Marvin A. Pomerantz, Des Moines
Mary C. Williams, Davenport
Maryin S. Berenstein, Sioux City
Betty Jean Furgerson, Waterloo
Elizabeth D. Hatch, Cedar Rapids
Thomas C. Dorr, Marcus
Melissa L. Johnson, Cedar Falls
John E. Tyrell, Manchester

▼ Administrative Staff

1992-94 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*

***Nancy A. Marlin** — B.A., State University of New York; M.S., Oklahoma State University; Ph.D., City University of New York
Vice President and Provost — 1989
Professor of Psychology — 1989

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, Ed.D., Virginia Polytechnic Institute and State University
Vice President for Development/Executive Vice President & Secretary, UNI Foundation — 1988

***Patricia L. Geadelmann** — 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)

Office of the President

Timothy J. McKenna — B.A., St. John's University (Collegeville, MN); J.D., University of Minnesota
Operations Auditor — 1988

Doris L. Miller — B.A., University of Northern Iowa
Administrative Assistant — 1949 (1965)

*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.

Division of Instruction

Division Administration

***Nancy A. Marlin** — B.A., State University of New York; M.S., Oklahoma State University; Ph.D., City University of New York
Vice President and Provost — 1989
Professor of Psychology — 1989

Charles L. Means — B.S., Southern Illinois University; M.A., Webster College; Ph.D., St. Louis University
Associate Vice President for Academic Affairs
Adjunct Associate Professor of Education — 1983 (1989)

***Marlene I. 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)

Robert E. Leestamper — B.A., University of Minnesota; M.A., Columbia University; Ed.D., Harvard University
Assistant Vice President for Academic Affairs—International Programs — 1989

***Beverly Byers-Pevitts** — B.A., Kentucky Wesleyan College; M.A., Ph.D., Southern Illinois University - Carbondale
Dean of the College of Humanities and Fine Arts
Professor of Communication and Theatre Arts — 1990

***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 Management — 1964 (1982)

***Gerald W. Intemann** — B.S., M.S., Ph.D., Stevens Institute of Technology
Dean of the College of Natural Sciences
Professor of Physics — 1990

Robert L. Minter — B.A., M.A., Miami University of Ohio; Ph.D., Purdue University
Dean of the College of Business Administration
Professor of Management — 1990

***Aaron Mayer Podolefsky** — B.A., California State University, San Jose; M.A., Ph.D., State University of Stony Brook, NY
Dean of the College of Social and Behavioral Sciences
Professor of Anthropology — 1990

Herbert D. Safford — B.A., University of Vermont; M.A., Yale University; M.S.L.S., D.L.S., Columbia University
Director of the Library — 1989

* Regular graduate faculty member.

Administrative Staff

***John W. Somerville** — B.A., Rhodes College; M.A., University of Mississippi; Ph.D., University of Arkansas
Dean of the Graduate College
Professor of Psychology — 1975 (1988)

***Thomas J. Switzer** — B.A., University of Northern Iowa; Ph.D., University of Michigan
Dean of the College of Education
Professor of Education — 1987

Office of the Vice President and Provost

Donna M. Cornils
Administrative Assistant — 1966 (1974)

College of Business Administration

Betty L. Anderson
Administrative Assistant — 1976 (1984)

LaDene Bowen — B.A., Metropolitan State College, Denver, Colorado
Project Manager, Institute for Decision Making, External Services Division — 1990

Lyle Bowlin — B.L.S., M.A., University of Iowa
Director, Small Business Development Center, External Services Division — 1987 (1992)

Cindy Cooley — B.A., M.B.A., University of Northern Iowa
Research Associate, Institute for Decision Making, External Services Division — 1990

Linda A. Corbin — B.A., University of Northern Iowa
Coordinator of the College of Business Administration — 1981 (1984)

Ron Fitch — B.A., University of Northern Iowa
Visual Production Assistant, Industrial Site Location Program, External Services Division — 1992

Kimm Frost — B.A., University of Utah
Program Assistant — 1984 (1991)

Jean Hedrington — B.A., University of Northern Iowa
Graphic Designer/Data Specialist, Industrial Site Location Program, External Services Division — 1992

Gene Lawin — B.A., University of Northern Iowa
Systems Coordinator, Institute for Decision Making, External Services Division — 1990

Lee H. Nicolas — B.S., B.A., University of Kansas; M.B.A., University of Tulsa
Coordinator of the College of Business, External Relations
Assistant Professor of Accounting — 1974 (1982)

Ronald A. Padavich — B.A., Northeast Missouri State University
Director of the Industrial Site Location Program, External Services Division — 1988 (1991)

Randal R. Pilkington — B.A., University of Northern Iowa
Director of the Institute for Decision Making, External Services Division — 1987 (1990)

David Prendergast — M.B.A., University of Chicago
Program Manager, Market Development Program, External Services Division — 1990

Delbert A. Shepard — B.A., University of Northern Iowa; M.S., Ph.D., Iowa State University
Director of the Management Development Center, External Services Division
Acting Director of the External Services Division
Assistant Professor of Marketing — 1987 (1991)

Wes Taylor — B.F.A., M.S., Utah State University
Visual Production Manager, Industrial Site Location Program, External Services Division — 1991

Pieter Vos — Associate degree, Nijenrode University, Netherlands; B.A., University of Oregon; B.F.T., American Graduate School of International Management
Program Manager, Market Development Program, External Services Division — 1990

Paul A. Winter — B.A., Michigan State University; M.A., Ohio State University; M.I.M., American Graduate School of International Management
Director of the Market Development Program, External Services Division
Instructor of Marketing — 1984 (1990)

Robert W. Wyatt — B.A., University of Northern Iowa; Ph.D., University of Iowa
Coordinator of Undergraduate Programs of the College of Business Administration
Associate Professor of Finance — 1980 (1989)

College of Education

Child Care Center

Lynda Loy — B.A., Morningside College
Assistant Coordinator — 1988

Jill Uhlenberg — B.A., M.A., University of Northern Iowa
Coordinator/Head Teacher, Instructor — 1990

Instructional Resources and Technology Services

Maxine Davis — B.A., Wartburg College
Circulation Coordinator — 1989 (1991)

Julie K. Wilkinson — B.A., M.A., Drake University
Director — 1980 (1991)

School of Health, Physical Education, and Leisure Services

Marchell C. Austin — B.S., University of North Dakota, Grand Forks; M.A., University of Northern Iowa
Assistant Athletic Trainer — 1990

Timothy H. Klatt — B.A., Central College; M.A., University of Northern Iowa
Assistant Intramural Sports Director — 1983 (1985)

Barbara A. Krieg — B.S.N., University of Iowa; M.A., University of Northern Iowa
Assistant to Director, Cardiac Rehabilitation Program — 1985

Mark A. Kwikkel — B.A., University of Northern Iowa; M.A., University of Nebraska, Omaha
Assistant Athletic Trainer — 1988

Terry G. Noonan — B.A., Loras College; M.S., Eastern Kentucky University
Head Athletic Trainer/Instructor — 1982 (1986)

Department of Special Education

Janet K. Doud — B.A., University of Northern Iowa
Supervisor, Northern Iowa Instructional Laboratory — 1978

Candace Sawyer — B.A., University of Nebraska; M.A.E., University of Northern Iowa
Administrator, Northern Iowa Instructional Laboratory — 1991

Department of Teaching

Dody Olson — B.S.N., Upper Iowa University
School Nurse, Malcolm Price Laboratory School — 1989

College of Humanities and Fine Arts

Department of Art

Marc E. Moulton — B.A., Weber State College; M.F.A., Ohio State University
Shop Technician/Art — 1989

Broadcasting Services

Douglas L. Vernier — B.A., M.A., University of Michigan
Director of Broadcasting Services
Assistant Professor of Radio/Television — 1972

Walter G. Alliss — Diploma, Des Moines Technical School; Diploma, U.S. Navy
Broadcast Operations Manager — 1988

* Regular graduate faculty member.

Sheila Baird — B.S., Viterbo College, LaCrosse
Development Assistant — 1990

Robert K. Dorr — B.A., University of Northern Iowa
Announcer — 1974 (1986)

Mary Fain — B.A., University of California, Berkeley
Senior Producer — 1990

David E. Hays — A.A., North Iowa Area Community College; A.A.S., Iowa
Central Community College
Public Information Coordinator — 1979 (1985)

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)

Elvin S. Jenkins — B.S., Jackson State University
Producer/Announcer — 1989

Thomas E. Kacmarynski — B.A., University of Northern Iowa
Radio Events Producer — 1985

William Menner — B.A., M.A., Ohio State University, Columbus
Producer/Announcer — 1990

Jons C. Olsson — B.A., Thiel College, Greenville, Pennsylvania
Assistant Director of Broadcasting/Development — 1978

Allen T. Schares — B.A., University of Northern Iowa
Music Coordinator/Producer — 1990

Steve L. Schoon — Diploma, Cleveland Institute of Electronics
Field Service Broadcast Engineer — 1986

Gregory B. Shanley — B.S., Ohio University
Senior Producer — 1986 (1990)

Mark A. Simmet — B.A., St. John's University
Announcer — 1987

Department of Communication and Theatre Arts

Katharine G. Morgan — B.A., New Mexico State University
Theatre Business Manager/Publicist — 1988

Todd Studebaker — B.A., Lenoir-Rhyne College; M.F.A., University of
Minnesota
Technical Director/Scene Shop Manager — 1991

Amy Wilson — B.A., Wisconsin-Green Bay; M.F.A., Michigan State University
Instructor/Costume Technical Director/Manager — 1990

Department of Modern Languages

Hildegard Morales Gomez — Bachillerato en Biología, Universidad de Chile;
B.A., Universidad de Chile; M.A., University of Northern Iowa
Administrative Assistant for the Elementary Language Program — 1985

School of Music

Robert Byrnes — B.A., M.A., University of Northern Iowa
Administrative Assistant
University Carillonneur
Adjunct Instructor of Choral Music — 1974 (1981)

College of Natural Sciences

Department of Biology

Ron D. Camarata
Biology Greenhouse and Preserves Manager — 1968 (1985)

Leila C. George
Biology Greenhouse and Preserves Assistant — 1989

Continuing Education and Special Programs

James E. Bodensteiner — B.A., Loras College; M.A., Ed.S., University of
Northern Iowa; Ed.D., Drake University
Director of Credit Programs — 1983

Nancy Bramhall — B.A., M.A., University of Northern Iowa
Administrator of Individual Studies Program — 1978 (1981)

Aurelia L. Klink — B.A., M.A., University of Northern Iowa
Director of Professional and Educational Seminars and Institutes
Assistant Professor of Management — 1966 (1985)

Karin L. Lawton — B.S., M.S., Iowa State University
Coordinator of Credit Programs — 1991

Nancy J. Osborne — B.A., M.A., University of Northern Iowa
Coordinator of Professional and Educational Seminars and Institutes — 1988

Karen Silversen — B.A., M.A., University of Northern Iowa
Special Programs Advisor — 1988

Graduate College

***John W. Somervill** — B.A., Rhodes College; M.A., University of Mississippi;
Ph.D., University of Arkansas
Dean of the Graduate College
Professor of Psychology — 1975 (1988)

Vivian R. Jackson — B.A., Rosary College; M.A., DePaul University; Ph.D.,
Northwestern University
Associate Graduate Dean
Associate Professor, Educational Administration and Counseling — 1990

David A. Walker — B.S., Missouri Valley College; M.A., Louisiana State
University; Ph.D., University of Wisconsin, Madison
Associate Graduate Dean
Professor of History — 1975 (1989)

Edward M. Ebert — B.A., M.A., University of Northern Iowa
Grants and Contracts Administrator — 1977 (1985)

Kadijata S. Timbo — B.A., University of Northern Iowa
Grants and Contracts Accountant — 1992

Educational Media Center

Robert R. Hardman — B.S.Ed., Maryland State Teacher's College; M.S.,
Ed.D., Indiana University
Director of the Educational Media Center
Professor of Educational Media — 1970 (1974)

Darrell G. Fremont — A.A., Hawkeye Institute of Technology; B.A., M.A.,
University of Northern Iowa
Media Lab Manager — 1986 (1987)

Terry D. Gore — B.A., M.S., Southern Illinois University
Coordinator of Graphic and Computer Imaging Services
Adjunct Instructor of Education — 1973 (1983)

Sandra J. Hendrickson — B.A., M.A., University of Northern Iowa
Operations Manager, Graphic and Computer Imaging Services — 1984 (1987)

Joseph J. Marchesani — B.A., Fordham University; M.S., Brooklyn College;
M.Ed., Temple University
Coordinator of Television and Audio Services — 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)

Wesley O. Taylor — B.F.A., M.S., Utah State University
Coordinator of Photography, Slide and Multi-Image Services — 1991

Educational Opportunity Programs and Special Community Services

JoAnn Anderson — B.A., Luther College
Academic Counselor, Student Support Services — 1979 (1991)

Laura D. Browns — B.A., M.A., University of Northern Iowa
Recruiter/Adviser, Educational Talent Search — 1991

Kelly A. Butler — B.A., University of Northern Iowa
Educational Counselor, Educational Opportunity Center — 1991

Rachel Clayton — B.A., Drake University
Assistant Director, Educational Opportunity Center — 1990 (1991)

Cliff E. Coney — B.A., University of Northern Iowa
Recruiter/Adviser, Educational Talent Search — 1987

Administrative Staff

- Dorla D. Dutcher** — B.A., University of Northern Iowa
Mathematics Specialist, Center for Academic Achievement — 1988
- Richard A. Frye** — B.L.S., M.A., Bowling Green State University
Director Academic Support Programs and Services — 1985 (1991)
Adjunct Instructor, Political Science
- Lavell Jackson** — B.A., Illinois State University
Recruiter/Adviser, Educational Talent Search — 1990
- Lynda J. Jenkins** — B.S., Langston University; M.A., University of Northern Iowa
Counseling Coordinator, Student Support Services — 1989 (1990)
- Wilfred M. Johnson** — B.A., M.A., University of Northern Iowa
Assistant Director of Upward Bound — 1988
- Judith A. Kahler** — B.A., University of Northern Iowa
Early Childhood Program Administrator — 1988
- Linda Luther** — B.A., University of Northern Iowa
Educational Counselor, Educational Opportunity Center — 1991
- Bradley McCalla** — B.A., Hemline University; M.S.E., Drake University
Educational Counselor, Educational Opportunity Center — 1991
- Karen K. McNeill** — B.S., Lincoln University; M.A., University of Northern Iowa
Retention Specialist/Academic Advisor, Student Support Services — 1981 (1986)
- Inez M. Murtha** — B.A., University of Northern Iowa
Director, Upward Bound — 1969 (1986)
- Barbara M. Poe** — B.A., University of Northern Iowa
Coordinator Tutorial Services/Supplemental Instruction, Student Support Services — 1988 (1991)
- Paula Dorris Reed** — B.A., University of Iowa
Recruiter/Adviser, Educational Talent Search — 1991
- Robert L. Smith, Jr.** — B.A., University of Iowa
Director, Educational Opportunity Center — 1988 (1991)
- Anthony Stevens** — B.A., Wartburg College; M.A., University of Northern Iowa
Director, Educational Talent Search — 1972 (1985)
- Jennie E. VerSteeg** — B.S., M.A., M.S., Iowa State University
Writing Specialist — 1990
- Diane P. Yoder** — B.A., University of Northern Iowa
Academic Counselor, Upward Bound — 1990 (1991)

Office of International Programs

- ***Virginia L. Hash** — B.S., Iowa State University; M.A., Ed.S., University of Northern Iowa; Ph.D., Iowa State University
Director of Culture and Intensive English Program
Director of International Program Development
Associate Professor of Educational Psychology and Foundations — 1966 (1991)
- Germana Nijim** — B.A., College of Saint Catherine; M.A., University of Rhode Island
International Services Director — 1970 (1991)

University Library

- Ken A. H. Bauer** — B.A., University of Northern Iowa
Computer Systems Specialist, Library — 1976 (1989)
- David Hoing** — B.A., University of Northern Iowa
Library Associate, Circulation — 1986
- Coyle 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

Department of Military Science

- Timothy A. Rippe** — B.S., U.S. Military Academy; M.A., Naval Postgraduate School
Head of the Department of Military Science
Lieutenant Colonel - Professor of Military Science — 1992
- Kevin M. Born** — B.S., University of Nebraska, Lincoln
Captain and Assistant Professor of Military Science — 1991
- David L. Nixon** — B.S., Northeast Missouri State University
Captain and Assistant Professor of Military Science — 1991

Museum

- Sue Grosboll** — B.A., University of Illinois, Urbana; M.A., Ph.D., University of Wisconsin, Madison
Director/Curator, Museum — 1992
Adjunct Professor of Anthropology — 1992

North American Review

- Robley C. Wilson** — 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. Romanin** — 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

- Carol A. Geiger** — B.A., University of Northern Iowa
Administrative Assistant — 1985 (1991)
- Geraldine Perreault** — B.A., University of Minnesota; M.S., Mankato State University; Ph.D., University of Minnesota
Director of Leadership Studies Program — 1991

Academic Advising Services

- Karen S. Agee** — A.B., A.M., Indiana University; Ph.D., New Mexico State University
Reading/Learning Strategies Coordinator — 1984
- Reginald J. Green** — B.A., Luther College; M.A., University of Northern Iowa
Associate Director of Academic Advising Services — 1974 (1977)
- Jean M. Neibauer** — B.A., Mercy College of Detroit; M.A., University of Northern Iowa
Coordinator of the Advising Center — 1983

Virginia A. Spiegel — B.A., University of Wisconsin-Eau Claire; M.A., Purdue University; Ph.D., University of Iowa
Academic Counselor, Academic Advising Services — 1991

Office of Admissions

Clark K. Elmer — B.A., University of Michigan; M.A., Michigan State University

Director of Residence — 1972 (1980)
Interim Director of Admissions — 1992

Jon D. Buse — B.A., University of Northern Iowa
Admissions Counselor — 1992

Ronald E. Green — B.A., University of Northern Iowa
Admissions Counselor — 1988

Nancie O. Handorf — B.S., Oregon State University
Coordinator of Admissions Processing Systems — 1975 (1986)

Constance C. Hansen — B.A., University of Northern Iowa
Admissions Counselor — 1989

Julie M. Heiple — B.A., University of Northern Iowa
Information System Assistant — 1979 (1991)

Dennis L. Hendrickson — B.A., M.A., University of Northern Iowa
Associate Director of Admissions — 1971 (1974)

Janelle L. Hildwein — B.A., University of Northern Iowa
Admissions Counselor — 1989

Christie M. Kangas — B.A., College of St. Scholastica; M.A., University of Northern Iowa

Assistant Director of Admissions/Transfer Relations — 1986 (1990)

Shelley L. Milks — B.A., University of Northern Iowa
Admissions Counselor — 1989

Daniel J. Schofield — B.A., M.A., University of Northern Iowa
Assistant Director of Admissions/High School Relations — 1985 (1990)

Elizabeth M. Shaffer — B.A., University of Northern Iowa
Admissions Counselor — 1992

Juanita P. Wright — B.A., University of Northern Iowa
Coordinator of Minority Recruitment — 1975 (1987)

Ethnic Minorities Cultural and Educational Center

James W. Johnson — B.S., M.S., Western Illinois University
Director of the Ethnic Minorities Cultural and Educational Center — 1986 (1989)

Financial Aid

Roland Carrillo — B.B.A., 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
Associate Director — 1979 (1989)

Brian S. Will — B.A., M.A., University of Northern Iowa
Assistant Director — 1982 (1988)

Samuel L. Barr — B.A., Simpson College
Financial Aid Counselor/Computer Specialist — 1985

Herbert King — B.A., University of Northern Iowa
Financial Aid Counselor — 1988 (1990)

Evelyn D. Waack — B.A., Luther College; M.A.T., University of Iowa
Financial Aid Counselor/Scholarship Coordinator — 1984 (1991)

Maucker University Union

Renee C. Romano — B.A., M.S.Ed., Southern Illinois University
Director of Maucker Union — 1988

Bryan L. Beardsley — A.A., Kirkwood Community College
Technical Coordinator — 1989

Richard D. Fekel — B.S., Buena Vista College
Assistant Director, Business and Operations — 1988

Janice M. Hanish — B.A., M.A., University of Northern Iowa
Assistant Director, Student Activities — 1977 (1985)

Brian J. Keints — B.S., South Dakota State University; M.E.D., Colorado State University

Coordinator, Student Organizations and Activities — 1989

Pamela R. Reisinger — B.A., University of Northern Iowa
Scheduling and Reservations Manager — 1985 (1986)

Placement and Career Services

Muriel B. Stone — B.M.E., Morningside College; M.A., Governor's State University

Director of Placement and Career Services — 1988

Sherry D. Candee — B.A., M.A., University of Iowa
Career Information Specialist — 1977 (1979)

Xuchitl N. Coso — B.A., M.A., University of Northern Iowa; M.A., University of Illinois-Urbana

Assistant Director of Placement — 1989 (1990)

Joanne F. Dorhout — B.S., Northwestern College
Overseas Placement Coordinator — 1989

Ronald E. O'Meara — B.T., M.A., University of Northern Iowa
Cooperative Education Coordinator — 1991

Susan M. Schwieger — B.S., M.S., Illinois State University; M.A., University of Northern Iowa

Assistant Director of Placement — 1989

Allan J. Stamberg — B.S., Western Michigan University; M.A., Appalachian State University; U.S. Naval War College
Cooperative Education Director — 1976

Elizabeth T. Vanderwall — B.F.A., Drake University
Placement Fair Coordinator — 1988 (1991)

Donna E. Vinton — B.A., University of Northern Iowa; A.B.D., University of Iowa

Assistant Director of Career Services — 1989

Donald D. Wood — B.A., M.A., University of Northern Iowa
Education Placement Director — 1980 (1981)

Office of the Registrar

Philip L. Patton — B.A., M.A., University of Northern Iowa
Registrar — 1972 (1991)

Mary E. Engen
Associate Registrar, Scheduling — 1967 (1979)

Douglas D. Koschmeder — B.A., University of Northern Iowa
Assistant Registrar, Information Management — 1986 (1989)

Jack L. Wielenga — B.A., M.A., Ed.S., University of Northern Iowa
Student Records and Retention Director — 1959 (1992)

Department of Residence

Clark K. Elmer — B.A., University of Michigan; M.A., Michigan State University

Director of Residence — 1972 (1980)
Interim Director of Admissions — 1992

Denise M. Baumann — B.S., Mankato State University; M.Ed., James Madison University

Hall Coordinator — 1991

Dorothea M. Berning
Manager/Custodial Services — 1967 (1988)

Gary Brickman
Assistant Manager/Custodial Services — 1989

Catherine E. BURGART — B.S., University of Northern Iowa
Food Stores Manager — 1989 (1990)

Gina M. Catalano — B.A., University of California, Santa Barbara; M.A., California State University, Hayward
Hall Coordinator — 1988

Administrative Staff

Gary C. Daters — B.A., University of Northern Iowa
Residence Business Manager — 1973 (1978)

Margaret J. Empie — B.S., University of Wisconsin, Stout
Assistant Director of Residence/Dining — 1980 (1989)

Carol L. Fletcher — B.A., University of Northern Iowa
Assistant Manager/Bakery — 1988 (1991)

Gregory N. Frescoln
Hall Coordinator — 1990

Elise A. Frohn
Assistant Dining Unit Manager — 1963 (1982)

Jolene M. Galligan — B.A., University of Northern Iowa
Dining Unit Manager — 1989 (1990)

Deborah M. Gerholdt — B.S., University of Nebraska-Lincoln
Assistant Dining Unit Manager — 1991

Daniel John Gleissner — B.S.; University of Wisconsin, Stevens Point; M.A.,
Ball State University
Assistant Director of Residence/Facilities — 1980

Elisabeth J. Hageman — B.A., University of Northern Iowa
Assistant Dining Unit Manager — 1985

Robert A. Hartman — B.S., M.A., Ball State University
Associate Director of Residence/Housing — 1977 (1980)

Linda J. Hildebrand — B.A., University of Northern Iowa
Assistant Dining Unit Manager — 1990

Jaralee L. Johnson — B.S., University of Wisconsin-Platteville; M.A.,
University of Iowa
Hall Coordinator — 1990

Tracee A. Kirkpatrick — B.A., University of Northern Iowa
Dining Unit Manager — 1978 (1989)

Lisa A. Kocher — B.S., Eastern Illinois University; M.S., Central Missouri
State University
Hall Coordinator — 1990

Drake E. Martin — B.J., University of Texas, Austin; M.A., Bowling Green
State University, Ohio
Programming Coordinator — 1981

Patrick Joe Matthew — B.A., University of Madras, India; B.S., M.S.,
University of Wisconsin-Stout
Assistant Dining Unit Manager — 1991

Ramona K. Millus — B.A., M.B.A., University of Northern Iowa
Associate Director of Residence/Dining — 1980 (1987)

Jane E. Moen — B.M., B.S., University of South Dakota, Vermillion; M.S.,
Iowa State University
Hall Coordinator — 1986

Lynn S. Perigo — B.A., M.A., University of Northern Iowa
Manager/University Apartments — 1989

Brandon G. Putney — B.S., University of Wisconsin, Stout
Assistant Manager/Catering — 1988 (1990)

Russell R. Rolinger — B.S., Florida State University
Assistant Dining Unit Manager — 1989

R. Kent Ruby — B.S., Northwest Missouri State University
FOCUS Coordinator — 1967 (1980)

Gale K. Secor — B.A., University of Northern Iowa
Dining Unit Manager — 1990 (1991)

Rosanne L. Sires — B.A., University of Northern Iowa
Assistant Dining Unit Manager — 1985

Michael L. Speros — B.A., M.A., Edinboro University of Pennsylvania
Hall Coordinator — 1990

Roger Uhlenhopp
Assistant Manager/Plant Services — 1975 (1988)

Mary T. Urbanski — B.A., College of Saint Scholastica, Duluth
Assistant Dining Unit Manager — 1989

Deborah S. Vangellow — B.A., University of Northern Iowa; M.S., Miami
University, Oxford, Ohio
Hall Coordinator — 1989

Dorothy M. Van Helten — B.S., Iowa State University
Assistant Dining Unit Manager — 1982

John M. Wagner — B.A., M.A., University of Northern Iowa
Hall Coordinator — 1987

Mark J. Watkins — B.S., Iowa State University
Assistant Dining Unit Manager — 1989

Carolyn M. Young-Haan — B.A., University of Northern Iowa
Dining Unit Manager — 1984 (1987)

University Health Services

Phyllis A. Bolte — R.N., Broadlawn School of Nursing, Des Moines, Iowa
Staff Nurse — 1973

Jean Boot — B.S., Drake University; B.S., Iowa State University
Business Manager, Health Services — 1992

Kenneth W. Caldwell — B.S., Iowa Wesleyan, Mount Pleasant; M.D.,
University of Iowa
Staff Physician — 1977

JoAnn C. Cummings — B.A., M.A., University of Northern Colorado
Counselor and Coordinator: Counseling Program for Adult Students — 1963
(1972)

Jergene Delaney — R.N., Hawkeye Institute of Technology
Staff Nurse — 1991

Martin R. Edwards — B.S., M.A., Central Michigan University; Ph.D., North
Texas State University
Counselor/Marriage and Family Therapist — 1973

Karla J. Fegley — B.S., Drake University
Pharmacist — 1982

Bruce E. Forystek — B.A., St. Cloud State University; M.D., University of
Minnesota
Staff Physician — 1982

Kathy M. Gulick — B.A., M.A., University of Northern Iowa
Wellness Promotion Director — 1989 (1990)

Kenneth E. Jacobsen — B.A., Dana College; M.C., Arizona State University;
Ph.D., University of Missouri-Columbia
Counselor and Wellness Coordinator — 1979 (1989)

Paula J. Gilroy Jacobsen — B.S., M.S., Shippensburg University; Ed.D.; West
Virginia
University
Counselor/Psychologist and Coordinator of Disabled Students Services —
1988

Ann H. McRae — R.N., Lynn Hospital School of Nursing; B.A., University of
Northern Iowa
Staff Nurse — 1988

Jacqueline J. Slykhuis — B.A., Stephen F. Austin State University; R.N., Allen
Lutheran School of Nursing, Waterloo, Iowa
Coordinator Nursing/Health Education — 1986 (1990)

Norman L. Story — B.A., David Lipscomb College; M.A., Western Michigan
University; Ph.D., California School of Professional Psychology
Counseling Center Director/Psychologist — 1968 (1981)

Paul D. Tenney — D.O., College of Osteopathic Medicine and Surgery, Des
Moines, Iowa
Staff Physician — 1971 (1976)

Joan A. Thompson — L.P.N., Rochester School of Practical Nursing; B.A.,
University of Northern Iowa
Health Aid Coordinator — 1982

Julie Thompson — B.A., University of Northern Iowa; M.A., Stephen F. Austin
University
Health Educator — 1992

Division of Administration and Finance

Division 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
Budget Director and Assistant Vice President — 1977 (1990)

Douglas R. Jensen — B.B.A., University of Iowa
Assistant to the Vice President for Administration and Finance — 1989

Oren R. Griffin — B.A., Southern University at New Orleans; M.A.E.,
University of Northern Iowa
Special Projects Assistant — 1989

Mary J. Prenosil — B.A., University of Iowa; M.B.A., University of Northern
Iowa
Budget Analyst — 1982 (1984)

Office of the Vice President for Administration and Finance

Darlyce A. Drum
Administrative Assistant — 1957 (1985)

Administrative Services

Roxanne Conrad
Director Purchasing Services — 1968 (1986)

Charles L. Neil — B.A., Western Illinois University
Purchasing Agent — 1991

Steven W. Cutsforth — B.A., University of Northern Iowa
Purchasing Agent — 1974

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)

Linda K. Gruetzmacher — B.S., University of Illinois; B.S., University of
Washington
Payroll Coordinator — 1988 (1991)

Brian T. Looby — B.B.A., University of Wisconsin-Eau Claire
Bursar — 1988

Carla S. Maletta — B.B.A., Iowa State University
Staff Accountant — 1992

Bruce A. Riels — B.A., University of Northern Iowa
Assistant Controller and Chief Accountant — 1979 (1985)

Bryan M. Segerstrom — B.A., Cedarville College
Senior Accountant — 1988

Facilities Planning

Morris E. Mikkelsen — B.Architecture, B.S., M.S., Iowa State University
Director of Facilities Planning, and University Architect — 1983 (1991)

Grant W. Christensen
Project Manager/Inspector — 1987

Paul E. Meyermann — B.S., Iowa State University
Landscape Architect — 1985

C. George Pavelonis — B.S., Southern Illinois University
Coordinator of Interior Design Services — 1985

Maurice G. Schreiber — B.T., University of Northern Iowa
Program Associate — 1991

Adele S. Vanarsdale — B. Architecture, University of Notre Dame
Architectural Planner — 1988

David L. Walter — B.S., Iowa State University
Associate Director, Engineering Services — 1977

Raymond L. Winterhalter — B.S.E.E., University of Toledo
Electrical/Project Engineer — 1989

Information Systems and Computing Services

J. Michael Yohe — B.A., DePauw University; M.S., Ph.D., University of
Wisconsin-Madison

Director of Information Systems and Computing Services
Adjunct Professor of Computer Science — 1989

Kenneth D. Connelly — B.A., University of Northern Iowa
Systems/Operations Manager — 1983 (1989)

Maureen F. Daley — A.A., Eastern Iowa Community College; B.S., Iowa State
University
Systems Analyst — 1985 (1987)

David C. Fanter — B.S., Augustana College
Data Base Administrator — 1978 (1985)

Roberta L. Fox — B.A., University of Northern Iowa
Information Systems Coordinator — 1976 (1991)

Doreen M. Hayek — B.A., M.B.A., University of Northern Iowa
User Services Manager — 1984 (1991)

Mary L. Howard — B.A., M.S., M.A., University of Iowa
Senior Programmer Analyst — 1988 (1989)

Dennis R. Lindner — B.A., Wartburg College
Information Systems Manager — 1978 (1989)

Clyde B. Luck, Sr. — Data Systems Coordinator — 1969 (1989)

Randall A. Maas — B.S., Iowa State University
Senior Systems Programmer — 1985

Marty L. Mark — B.A., University of Northern Iowa
Data Network Specialist — 1989

Steven Y. Moon — B.A., University of Northern Iowa; M.S., University of Iowa
Assistant Director/Network & Technical Services — 1979 (1989)

Monica Mundhenke — A.S., Southeastern Community College; B.A.,
University of Northern Iowa
Systems Analyst — 1986 (1990)

Patricia J. Palmersheim — Data Base Assistant — 1971 (1989)

Thomas C. Peterson — A.A., Boone Jr. College; B.S., Iowa State University
Associate Director, Information Systems & Computer Services — 1982 (1989)

Jason S. Pierce — B.A., University of Northern Iowa
Program Analyst III — 1990 (1991)

Kevin R. Quarnstrom — A.A., Boone Jr. College; B.A., M.B.A., University of
Northern Iowa
Information Systems Coordinator — 1979 (1985)

Donald L. Raeford — A.A., Des Moines Area Community College
Program Analyst II — 1991

Lyle A. Rasmussen — B.S., Iowa State University
Information Systems Coordinator — 1978 (1981)

Patti J. Rust — B.A., University of Northern Iowa
Systems Analyst — 1988 (1990)

Lori A. Steger — B.A., Clarke College
Program Analyst III — 1990 (1991)

Diane C. Sullivan — B.A., University of Northern Iowa
Support Services Coordinator — 1980 (1986)

Merlin D. Taylor — B.A., University of Northern Iowa
Voice System Administrator — 1966 (1989)

Jay A. Venenga — B.A., University of Northern Iowa
Systems Programmer — 1990

Mary C. Westendorf — B.A., University of Northern Iowa
Senior Programmer Analyst — 1988 (1991)

Jon R. Wolter — A.A.S., Hawkeye Institute of Technology
Field Service Manager — 1984 (1989)

Intercollegiate Athletics and UNI-Dome Administration

Christopher Ritrievi — B.A., Princeton University; M.B.A., Lehigh University,
Pennsylvania
Director of Athletics — 1992

Administrative Staff

Mark Ackerman — B.A., Gonzaga University; M.A., University of Northern Iowa
Assistant Women's Basketball Coach — 1991

Irdge Ahrabi-Fard — B.A., M.A., University of Northern Iowa; Ph.D., University of Minnesota
Head Volleyball Coach — 1972 (1981)

Terry C. Allen — B.A., University of Northern Iowa
Head Football Coach — 1979 (1989)

V. Wesley Anderson — B.A., University of Northern Iowa
Assistant Football Coach — 1991

Marchell M. Austin — B.S., North Dakota State University; M.S., University of Northern Iowa
Instructor/Assistant Athletic Trainer — 1990

Meredith L. Bakley — B.S., Black Hills State College; M.S., Colorado State University
Instructor/Head Softball Coach — 1978

Gary A. Barta — B.S., North Dakota State University
Director of Athletic Development — 1990

Patricia M. Beck — B.A., Iowa State University
Director of Marketing and Promotions/Sports Camps Coordinator — 1990

Janice M. Bittner — B.S., Valparaiso University; M.S., Illinois State University
Assistant Women's Volleyball Coach — 1982

Kevin Boyle — B.S., University of Iowa
Assistant Men's Basketball Coach — 1986

Donald B. Briggs — B.S., University of Iowa; M.A., University of Northern Iowa
Head Wrestling Coach — 1972 (1981)

Julie A. Bright — B.A., University of Northern Iowa
Business Manager of Athletics — 1975 (1985)

Gene L. Bruhn — Doctor of Chiropractic, Palmer College of Chiropractic
Assistant Softball Coach — 1982

Christopher E. Bucknam — B.S., Norwich University; M.A., University of Northern Iowa
Head Men's Track & Cross Country Coach — 1979 (1984)

Kevin C. Buisman — B.A., M.B.A., University of Northern Iowa
Program Associate — 1989

James A. Egli — B.S., Buena Vista College
Assistant Athletic Director/Facilities — 1988

Mark A. Farley — B.A., University of Northern Iowa
Assistant Football Coach — 1988

Sheng Gao — B.A., University of Beijing, China
Assistant Volleyball Coach/Adjunct Instructor — 1989

Kenneth N. Green — B.S., Iowa State University; M.A., University of Northern Iowa; Ed.D., University of Arkansas
Head Men's Golf Coach — 1967

Joel R. Greenlee — B.A., University of Northern Iowa
Assistant Wrestling Coach — 1989

James G. Hall — B.S., M.S., Eastern Illinois University
Head Men's/Women's Swimming Coach — 1983

John A. Jermier — B.A., Coe College; M.A., University of Iowa
Associate Director of Athletics — 1980

Nancy A. Justis — B.A., University of Iowa
Director of Sports Information — 1974 (1984)

Kevin C. Kane — B.A., University of Northern Iowa
Assistant Director of Sports Information — 1988

Robert Kincaid — B.A., Adams State College
Assistant Football Coach/Academic Advisor — 1983

Walter A. Klinker — B.S., University of Colorado
Offensive Coordinator/Offensive Line Coach/Football — 1983

Sheryl Knutson — B.A., University of Northern Iowa
Program Assistant Women's Basketball — 1991

David A. Kohrs — UNI-Dome Facilities Coordinator — 1977 (1989)

Mark A. Kwikel — B.A., University of Northern Iowa; M.A., University of Nebraska
Assistant Athletic Trainer/Instructor — 1988

Terri A. Lasswell — B.Ed., Washburn University; M.S., University of Kansas
Head Women's Basketball Coach — 1989

William T. Lawson — B.A., M.S., University of Northern Iowa
Assistant Men's Track Coach/Instructor — 1984

Kevin J. Lehman — A.A., Palmer Junior College; B.A., Wartburg College; M.S., Drake University
Assistant Basketball Coach — 1986

Eldon J. Miller — B.S., M.Ed., Wittenberg College, Springfield, Ohio
Men's Head Basketball Coach — 1986

Richard Moseley — B.A., Eastern Michigan; M.A., University of Michigan
Assistant Secondary Football Coach — 1992

Jeffrey S. Noble — B.S., Iowa State University; M.S., Western Illinois University
Assistant Swimming/Diving Coach; Instructor — 1989

Terry G. Noonan — B.S., Loras College; M.S., Eastern Kentucky University
Head Athletic Trainer — 1983 (1986)

William Salmon — B.A., University of Northern Iowa
Assistant Football Coach — 1984

David Schrage — B.S.B.A., Creighton University; M.S., St. Thomas University
Head Baseball Coach/Administrative Assistant-Dome — 1990

LeAnn Shaddox — B.A., University of Northern Iowa; M.A., University of Iowa
Head Women's Track & Cross Country Coach/Instructor — 1985

Sam Skarich — B.A., M.A., Notre Dame University
Part-time Assistant Men's Basketball Coach — 1986

Terri A. Soldan — B.S., M.A., University of Iowa
Assistant Women's Track and Cross Country Coach/Instructor — 1986

Deborah S. Vangellow — B.A., University of Northern Iowa; M.S., Miami University (Ohio)
Head Women's Golf Coach/Shull Hall Coordinator — 1989 (1991)

Ardell L. Wiegandt — B.S., M.S., North Dakota State University
Assistant Football Coach — 1989

Sandra C. Williamson — B.S., M.S., Eastern New Mexico University; Ed.D., University of Northern Colorado
Associate Director of Athletics — 1978 (1989)

Personnel Services

John D. Mixsell, Jr. — B.S., Saint Lawrence University, New York; M.A., Webster College, Missouri
Personnel Services Director — 1979

Loren T. Allen — B.S., Iowa State University; M.A., University of Iowa
Benefits Coordinator — 1982

Gwendolyn Johnson — B.A., University of Iowa, M.A., University of Northern Iowa
Operations and Training Coordinator — 1989

Jane J. Juchems — B.S., Iowa State University
Compensation & Employment Manager — 1979 (1989)

Aimee T. Lew — B.A., Central Washington State College
Recruitment and Classification Specialist/Merit — 1986 (1987)

Donald R. Walton — B.A., St. Ambrose College; M.A., University of Northern Iowa
Recruitment and Classification Specialist/Professional & Scientific — 1966 (1989)

Physical Plant

Administration

Duane C. Anders — B.A., University of Northern Iowa
Director, Physical Plant — 1982 (1987)

Carol L. Creeden — B.A., University of Northern Iowa
Operations Administrator — 1990

Alvin J. Kyhl
Manager, Campus Services — 1971 (1985)

Campus Services

Virgil L. Cordes
Assistant Manager, Plant Services — 1982 (1988)

Merlyn L. Heidt
Coordinator/Greenhouse — 1975 (1988)

Gary E. Pietig
Assistant Manager/Plant Services — 1971 (1988)

Terry L. Sheerer
Assistant Manager/Plant Services — 1982 (1988)

Custodial

William T. McKinley — B.A., University of Northern Iowa
Manager, Building Services — 1982 (1985)

Roger W. Baumann
Assistant Manager, Building Services — 1985 (1988)

Dorothy L. Corwin
Assistant Manager, Building Services — 1978 (1989)

John R. Geary
Assistant Manager, Building Services — 1982 (1988)

Theresa A. Mosley
Assistant Manager, Building Services — 1975 (1988)

Kathryn A. Nicol
Assistant Manager, Building Services — 1969 (1988)

Energy Conservation Management

David M. Andersen — A.A.S., Hawkeye Institute of Technology
Manager/Energy Conservation — 1979 (1989)

Thomas J. Richtsmeier — B.S.M.E., Iowa State University
Utility/Energy Engineer — 1982 (1989)

Operations and Maintenance

Ronald K. Bigelow
Manager, Operations and Maintenance — 1966 (1985)

Scott J. Hall — A.S., North Iowa Area Community College
Manager, Maintenance Services — 1977 (1985)

Darrell R. Hansen
Manager, Mechanical Services — 1982 (1985)

John J. Perry
Assistant Manager, Plant Services — 1980 (1989)

Lonnie F. Piper
Project Manager — 1981 (1985)

Delmar J. Sherwood
Manager, Carpentry Services — 1967 (1989)

Utilities

Michael E. McGraw
Manager, Power Plant — 1989 (1991)

Charles F. Fosselman — B.S., Upper Iowa University
Assistant Manager, Plant Services — 1972 (1988)

Arthur C. Johnson — A.A.S., Milwaukee School of Engineering
Utilities Distribution/Special Services Coordinator — 1967 (1984)

Public Safety

Dean A. Shoars — B.A., Parsons College; M.A., University of Northern Iowa
Director of Public Safety — 1987

David J. Zarifis — B.A., University of Northern Iowa
Assistant Director of Public Safety — 1988

Division of Development

Division Administration

J. Joe Mitchell — B.A., Hampden-Sydney College; M.S., Longwood College;
Ed.D., Virginia Polytechnic Institute and State University
Vice President for Development/Executive Vice President & Secretary, UNI
Foundation — 1988

Jean Carlisle — B.A., M.A., University of Northern Iowa
Administrative Assistant — 1984 (1989)

Office of Alumni Relations

Noreen M. Hermansen — B.S., Oklahoma College of Liberal Arts; M.A.E.,
University of Northern Iowa
Director of Alumni Relations
Executive Director/Northern Iowa Alumni Association — 1968 (1988)

Jeffrey Liebermann — B.A., University of Northern Iowa
Assistant Director of Alumni Relations — 1989

Office of Development

William D. Calhoun, Jr. — B.A., Hiram College, Ohio; M.A., University of
Northern Iowa
Director of Special Gifts/Assistant Vice President for Development — 1981
(1988)

Gary A. Barta — B.S., North Dakota State University
Director of Athletic Development — 1990

Jeffrey D. Lorber — B.A., University of Northern Iowa; M.S., Western Illinois
University
Director of Major Gifts — 1991

Dale J. Palmer — B.A., University of Northern Iowa
Accounting Manager — 1990

Ruth E. Ratliff — B.A., St. Olaf College; M.A., Ph.D., University of Iowa
Director of Corporate & Foundation Relations — 1976 (1988)

Diane J. (Dee) Vandeventer — B.S., Iowa State University
Director of Annual Giving — 1985

Division of Governmental Relations

***Patricia L. Geadelmann** — 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)

Jane E. Larson — B.A., University of Northern Iowa
Administrative Assistant — 1982 (1991)

Administrative Staff

Division of Communication and Outreach Services

Division Administration

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 Affirmative Action

Winston Burt — B.A., Inter-American University; M.S., Ed.S., Ph.D., University of Michigan
Director of Affirmative Action Programs
Adjunct Professor of Social Work — 1988 (1991)

Office of Community Services

Lowell Norland
Director of the Office of Community Services — 1987

Office of Conferences and Visitor Services

Duane H. McDonald — B.A., University of Missouri, Kansas City; M.Ed., University of Missouri, Columbia
Director of Conferences and Visitor Services — 1986

Iowa Plastics Technology Center

Ramon L. Klemmensen — B.S., Iowa State University
Plastics Technology Specialist — 1990

Iowa Waste Reduction Center

John L. Konefes — B.S., Iowa State University; M.S., University of Massachusetts; M.S., University of Iowa
Director of the Iowa Waste Reduction Center — 1988

Sue K. Behrens — B.A., University of Northern Iowa
Waste Reduction Research Assistant — 1991

Kimberly K. Gunderson — B.S., Marquette University, Milwaukee
Environmental Specialist — 1988

Carol A. Huston — B.S., Iowa State University
Waste Reduction Specialist — 1990

James A. Olson — B.A., University of Northern Iowa; M.S., Southern Illinois University
Waste Management Specialist — 1988

Susan K. Salterberg — B.A., Central College; M.A., Lesley College
Waste Reduction Specialist — 1991

Mark F. Trapani — B.S., M.S., Alfred University
Waste Reduction Specialist — 1990

Office of Planning Administration

Paul M. Butler-Nalin — B.A., Princeton University; M.A., Ph.D., Stanford University
Planning Administrator — 1990

Office of Public Relations

Susan Metz Chilcott — B.A., Midland Lutheran College, Nebraska; M.A., Creighton University
Director of Public Relations — 1976 (1986)

Gerald V. Anglum — B.A., University of Northern Iowa
Media Relations Director and Assistant to the Director for Creative Services — 1989 (1992)

Gwennette C. Culpepper — B.A., Iowa State University
Publications Specialist — 1992

Barbara J. Erickson — B.A., M.A., University of Northern Iowa
Communications Specialist — 1992

Vicki S. Grimes — B.A., University of Iowa
Manager of Information and Feature Services — 1970 (1991)

Donavan M. Honnold — B.A., University of Northern Iowa
Publications & Printing Services Director — 1988

Paul C. Kaufmann — B.A., Iowa State University
Broadcast Communications Editor — 1991

Elizabeth Conrad LaVelle — B.A., Lawrence University, Wisconsin; M.A., Western Michigan University
Art Director/Designer — 1977 (1990)

Karen M. Mills — B.A., University of Northern Iowa
Yearbook Coordinator — 1984 (1991)

Merri V. Moser — B.A., University of Northern Iowa
Graphic Designer — 1990

Craig G. Olson — B.A., Iowa State University
Broadcast and Video Communications Manager — 1988 (1991)

Janeen K. Stewart — B.S., Iowa State University
Periodical & Publications Editor — 1988

Lyle G. VandenHull — B.A., University of Northern Iowa
Manager of Printing & Mailing Services — 1990 (1992)

William G. Witt — B.A., University of Northern Iowa
Photo Journalist — 1980 (1986)

▼ Emeritus Faculty

- Janice F. Abel** — B.M.E., M.M.E., Drake University; Ed.D., Indiana University
Director of Academic Advising Services — 1972 (1992)
- James E. Albrecht** — B.A., M.A., Ed.S., University of Northern Iowa; Ed.D., Indiana University
Professor of Educational Administration & Counseling — 1965 (1990)
- John F. Aldrich** — B.S., University of Rhode Island; M.Ed., Boston University
Professor of Teaching — 1955 (1986)
- Mary Nan Koen Aldridge** — B.S., M.S., Texas A & I University; Ed.S., University of Northern Iowa; Ph.D., Iowa State University
Professor of Education: Middle School/Jr High School Education — 1967 (1990)
- H. Wendell Alford** — B.A., John B. Stetson University; B.D., Southwestern Baptist Theological Seminary; B.S.L.S., North Texas State University
Associate Professor/Library — 1959 (1986)
Assistant Director of Technical Services of the Library — 1959 (1986)
- Ruth B. Anderson** — B.A., University of California-Berkeley; M.S.W., Columbia University
Professor of Social Work — 1969 (1990)
- George G. Ball** — B.S., M.A., Kent State University; Ed.D., University of Wyoming
Professor of Education and Psychology — 1958 (1978)
- Jackson N. Baty** — B.A., Stanford University; M.A., Ed.S., University of Northern Iowa; Ed.D., Drake University
Assistant Professor of Educational Psychology & Foundations — 1971 (1987)
- Russell N. Baum** — B.M., M.M., Eastman School of Music, University of Rochester
Professor of Piano — 1938 (1981)
- Randall R. Bebb** — B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa
Coordinator of Student Teaching — 1947 (1981)
- Mary Green Beckman** — B.M., Oberlin Conservatory of Music; M.M., Cleveland Institute of Music
Professor of Harp and Theory — 1947 (1990)
- 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 Activities
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. Bock** — B.M., M.M., Northwestern University; Ph.D., University of Iowa
Professor of Music History — 1939 (1984)
- E. Jean Bouts** — 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)
- Ronald D. Bro** — B.A., M.A., University of Northern Iowa; Ed.D., University of Nebraska
Professor of Industrial Technology — 1967 (1992)
- 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)
- Lena P. Buckingham** — B.S., Northeast Missouri State Teachers College; M.S., Iowa State University
Associate Professor of Home Economics — 1953 (1968)
- Kenneth G. Butzler** — B.A., University of Northern Iowa; M.S., University of Wisconsin
Associate Professor of Teaching: Speech and Drama — 1960 (1992)
- 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'Université de Paris (Sorbonne)
Professor of French — 1961 (1983)
- Tieh-Cheng Chin** — B.A., National Northeastern University, China; M.A., M.L.S., University of Washington; A.M.L.S., Florida State University
Associate Professor of Library Science
Bibliographer — 1971 (1985)
- Robert E. Claus** — B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa
Professor of Sociology — 1959 (1992)
- Bernard L. Clausen** — B.A., Colgate University; M.S., University of Michigan
Associate Professor of Biology — 1959 (1992)
- Elinor 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)
- Walter E. DeKock** — B.A., Central College; M.A., University of Northern Iowa; Ph.D., Ohio State University
Associate Professor of Science Education — 1964 (1992)
- David D. Delafield** — B.F.A., M.A., Ph.D., Ohio State University
Professor of Art — 1951 (1982)
- Gordon B. Denton** — B.B.A., University of Texas; M.B.A., University of Iowa
Associate Professor of Marketing — 1965 (1980)
- Joan E. Diamond** — B.A., Knox College; M.S., University of Illinois
Associate Professor of Teaching: Educational Media — 1957 (1990)
- Saul L. Diamond** — B.S., Syracuse University; M.B.A., Wharton School of Business, University of Pennsylvania
Associate Professor of Marketing — 1967 (1991)
Director of the Small Business Institute
- Margaret Divelbess** — B.A., Grinnell College; M.A., Columbia University
Associate Professor of Teaching — 1927 (1964)
- Douglas D. Doersman** — B.A., M.A., University of Northern Iowa
Assistant Professor of Teaching
Coordinator of Student Teaching — 1967 (1992)
- Henry T. Dohrman** — A.B., Nebraska State College; S.T.B., Ph.D., Harvard University
Professor of Sociology, Anthropology and Social Work — 1949 (1982)
- Richard S. Douglas** — A.B., J.D., Duke University; Ed.S., Rutgers University
Graduate School of Education
University Risk Manager — 1976 (1990)
- Virgil E. Dowell** — B.S., M.S., Kansas State Teachers College; Ph.D., University of Oklahoma
Professor of Biology — 1956 (1988)
- 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 (1988)
- William H. Dreier** — B.S., Iowa State University; M.A., Ph.D., University of Minnesota
Professor of Educational Psychology and Foundations — 1949 (1985)
- Ann Mary Dunbar** — B.A., Clarke College; M.A., Ed.S., University of Northern Iowa
Associate Professor of Educational Psychology & Foundations — 1962 (1992)
- Mary K. Eakin** — B.A., Drake University; B.L.A., M.A., University of Chicago
Associate Professor of Education — 1958 (1968)
- Charlene M. Eblen** — B.A., University of Wichita; M.A., University of Northern Iowa
Associate Professor of English — 1967 (1992)
- Roy E. Eblen** — B.A., Williams College; M.A., Wichita State University; Ph.D., University of Iowa
Professor of Speech-Language Pathology — 1960 (1985)
- Charlotte Eilers** — B.A., M.A., University of Northern Iowa
Professor of Speech — 1965 (1982)

Emeritus Faculty

Lawrence J. Ellers — B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa
Professor of Biology — 1968 (1989)

Ivan L. Eland — B.A., University of Northern Iowa; M.A., University of Colorado

Associate Professor of Education
Director of Safety Education — 1960 (1989)

Robert Eller — B.A., M.A., University of Iowa
Assistant Professor of Media
Coordinator of Audio-Visual Services — 1961 (1991)

Harley E. Erickson — B.S., Wisconsin State University-LaCrosse; M.S., Ph.D., University of Wisconsin
Professor of Educational Psychology and Foundations — 1963 (1987)

Russell E. Euchner — B.A., M.A., University of Northern Iowa
Assistant Professor of Education — 1960 (1991)

Manuel A. Febles — 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)

Donald G. Finegan — B.F.A., M.A., Ohio State University
Professor of Art — 1955 (1988)

Merrill F. Fink — B.A., Central Michigan University; M.S., University of Michigan
Registrar — 1946 (1978)

Louise C. T. Forest — B.A., M.A., Bryn Mawr College; Ph.D., Yale University
Professor of English — 1948 (1983)

Joseph E. Fratianne — B.S., Bridgewater State College; M.S., Ph.D., University of Wisconsin, Madison
Assistant Professor of Teaching
Coordinator of Student Teaching — 1971 (1991)

Arnold J. Freitag — B.S., Purdue University; M.S., Iowa State University
Assistant Professor of Industrial Technology — 1968 (1991)

Charles C. Gillette — B.S., Iowa State University; M.A., University of Northern Iowa; Ph.D., Oklahoma State University
Associate Professor of Economics — 1966 (1991)

Laura K. Gilloley — B.S., M.A., University of Minnesota
Associate Professor of Teaching — 1950 (1971)

Lewis E. Glenn — L.L.B., George Washington University
Associate Registrar, Scheduling — 1966 (1979)

Walter J. Gohman — B.A., St. Cloud State College, Minnesota; M.A., University of Minnesota
Associate Professor of Teaching: Science — 1951 (1977)

Ralph M. Goodman — B.A., M.A., Ph.D., University of California-Los Angeles
Associate Professor of English — 1964 (1988)

Robert C. Goss — B.S., Huntington College; M.S., Ph.D., Purdue University
Professor of Biology — 1961 (1991)

Donald W. Gray — A.B., Asbury College; B.D., Emory University; M.A.L.S., University of Minnesota
Associate Professor of Library
Assistant Director of Public Services — 1967 (1990)

Elton E. Green — B.S., M.S., Kansas State University; Ed.D., University of Northern Colorado
Professor of Physical Education — 1968 (1990)

Leslie W. Hale — B.M.E., M.M.E., Drake University; M.A., University of Missouri-Kansas City; D.M.A., University of Missouri
Professor of Teaching — 1960 (1988)

Albert C. Haman — B.A., University of Iowa; M.A., Michigan State University
Associate Professor of Biology — 1961 (1988)

Elbert 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)

Nellie D. Hampton — B.S., Central Missouri State University; M.A., State University of Iowa; Ph.D., University of Wisconsin
Professor of Education — 1945 (1981)

James L. Handorf — B.A., University of Northern Iowa; M.A., Ph.D., University of Northern Colorado
Associate Professor of Management — 1966 (1990)

Thomas W. Hansmeier — B.A., M.A., University of Northern Iowa; Ed.D., Michigan State University
Professor of Educational Administration & Counseling
Coordinator of Continuing Education, College of Education — 1971 (1991)

Alden B. Hanson — B.A., St. Olaf College; M.Ph., University of Wisconsin
Associate Professor of English
Foreign Student Advisor — 1946 (1975)

Donald L. Hanson — B.A., M.A., University of Northern Iowa; Ed.D., University of Wyoming
Professor of Educational Administration & Counseling — 1966 (1986)

William P. Happ, Jr. — B.S., Northwestern University; M.S., Ph.D., University of Iowa
Professor of Teaching — 1948 (1974)

Gordon M. Harrington — B.E.E., Georgia Institute of Technology; Ph.D., Yale University
Professor of Psychology — 1963 (1992)

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)

Douglas M. Hieber — A.B., Cornell College; M.S.L.S., University of Illinois
Associate Professor and Head of Circulation — 1967 (1992)

Joseph F. Hohlfeld — B.A., Hastings College; M.B.S., University of Colorado; Ed.D., Indiana University
Associate Professor of Teaching: Mathematics — 1978 (1988)

Olive J. Holliday — B.A., University of Northern Iowa; M.A., University of Illinois
Associate Professor of Home Economics — 1949 (1974)

Telford F. Hollman — L.L.M., John Marshall Law School; M.B.A., DePaul University; Ph.D., J.D., University of Chicago
Professor of Business Law — 1968 (1983)

Karl 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 (1984)

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 (1991)

Max M. Hosier — B.A., Nebraska State Teachers College, Peru; M.A., Ed.D., University of Northern Colorado
Professor of Education: Reading — 1951 (1988)

Mary Ann Jackson — B.S., M.S., University of Arkansas
Assistant Professor of Teaching — 1953 (1981)

Verner Jensen — B.S., University of Nebraska; M.S., Iowa State University
Professor of Physics — 1956 (1991)

Howard V. Jones — B.A., M.A., Ph.D., Harvard University
Professor of History — 1954 (1991)

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)

Jack F. Kimball — B.A., University of Kansas City; M.A., Syracuse University; Ed.D., Columbia University
Associate Professor of Educational Administration & Counseling — 1967 (1988)

Howard T. Knutson — B.A., Luther College; M.A., Ed.D., University of Wyoming
Professor of Educational Administration & Counseling — 1953 (1981)

Director of Teacher Education
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)
Head of Department of Social Science (1955-1959)
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)

- Geraldine E. LaRocque** — B.S., M.A., University of Minnesota; Ph.D., Stanford University
Professor of English
University Liaison for Teacher Education — 1973 (1991)
- 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)
- Robert D. Leahy** — B.S., Valparaiso University, Indiana; M.A. University of Iowa
Registrar — 1976 (1991)
- Fred W. Lott** — A.B., B.S., Cedarville College; M.A., Ph.D., University of Michigan
Professor of Mathematics — 1949 (1984)
Assistant Vice President of Academic Affairs — (1971-1984)
- Jonathan J. Lu** — B.Ed., Taiwan Normal University; B.D., Asbury Theological Seminary; M.A., Ohio State University; Ph.D., University of Washington
Professor of Geography — 1973 (1992)
- 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 of the 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)
- Kent A. McIntyre** — B.A., University of Iowa; M.A., University of Denver
Associate Professor of Teaching: Educational Media — 1968 (1990)
- 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 Catalog — 1960 (1988)
- 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)
- 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 (1991)
- James G. Martin** — B.A., M.A., Indiana State College; Ph.D., Indiana University
Professor of Sociology — 1971 (1989)
Vice President and Provost — (1971-1989)
- A. Marleta Matheson** — B.M.E., Simpson College; M.M., University of Michigan
Associate Professor of Group Piano and Accompanying — 1964 (1991)
- Charles D. Matheson** — B.M., M.M., University of Michigan
Professor of Voice — 1955 (1982)
- Jvone A. Maxwell** — B.A., University of Northern Iowa; M.M., American Conservatory of Music
Associate Professor of Piano — 1940 (1978)
- Peter M. Mazula** — B.S., University of New York, Courtland; M.A., Ed.D., Columbia University
Professor of Teaching: Safety Education
Head Men's Tennis Coach — 1949 (1990)
- Josephine J. Megivern** — 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 and Order Librarian — 1930 (1971)
- Gretchen M. Myers** — B.A., University of Iowa; M.A.L.S., Rosary College
Assistant Professor
Reference Librarian — 1967 (1989)
- Ross A. Nielsen** — B.A., Wartburg College; M.S., Ph.D., University of Iowa
Professor of Teaching
Head of Department of Teaching — 1947 (1986)
- Samuel Nodarse** — B.A., Colegio de la Salle (Havana); Doctorate of Social Sciences, Doctorate of Law, Universidad de la Habana, Cuba; Ph.D., University of Illinois, Urbana
Professor of Spanish — 1964 (1988)
- Karl Edward Odwarka** — Diplom, Akademie fuer Welthandel, Frankfurt; A.B., M.A.T., Wayne State University; Ph.D., University of Michigan
Professor of German — 1964 (1991)
- 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)
- 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 (1992)
- 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. Pickium** — B.A., Colorado State University; M.S., Ph.D., Iowa State University
Associate Professor of Biology — 1957 (1987)
- 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)
- Lois S. Potter** — B.A., Yankton College; M.A., University of Iowa; Ph.D., University of Wisconsin
Professor of Teaching: Speech Pathology — 1950 (1991)
- Joseph Przychodzin** — B.Ed., Southern Illinois University; M.A., University of Illinois; Ed.D., University of Missouri
Professor of Educational Psychology & Foundations — 1947 (1980)
- Ned H. Ratekin** — B.A., Parsons College; M.A., Ph.D., University of Iowa
Professor of Education: Reading — 1965 (1992)
- Jack C. Reed** — B.A., M.A., University of Northern Iowa; Ed.D., University of Nebraska-Lincoln
Associate Professor of Business Education — 1965 (1990)
- Dixon L. Riggs** — B.A., Marietta College; M.S., University of Michigan
Associate Professor of Biology — 1958 (1987)
- Verna F. Ritchie** — B.A., Hunten College; M.A., McGill University; M.A.L.S., University of Michigan
Professor and Art and Music Librarian — 1966 (1991)
- James B. Roberson** — B.S., Middle Tennessee State Teachers College; M.A., George Peabody College for Teachers
Associate Professor of Teaching — 1964 (1984)
- 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)

Emeritus Faculty

Clair D. Rowe — B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa
Professor of Marketing — 1986 (1991)
Acting Dean, College of Business Administration — 1990

Julia J. Rozendaal — B.A., M.A., Ed.S., University of Northern Iowa
Assistant Professor of Educational Psychology & Foundations — 1966 (1988)

Myron E. Russell — B.M., Kansas State University; M.M., Eastman School of Music, University of Rochester; Ph.D., University of Michigan
Professor of Woodwind Instruments
Head of the School of Music — 1929 (1973)

Arlene A. Ruthenberg — B.A., University of Northern Iowa; M.E., Wayne State University
Youth Collection Librarian/Assistant Professor — 1968 (1980)

Edward Rutkowski — B.S., Marquette University; M.A., Ph.D., Michigan State University
Professor of Educational Psychology & Foundations — 1963 (1990)

Pauline L. Sauer — B.Ed., Chicago Teachers College; M.A., University of Michigan; Ph.D., Cornell University
Associate Professor of Biology
Director of the UNI Museum — 1949 (1981)

Otis R. Schmidt — B.J., M.J., University of Texas, Austin; M.A., Sam Houston State College
Assistant Professor of English Language and Literature — 1965 (1988)

N. Marshall Schools — B.S., Mary Washington College; M.A., George Peabody College for Teachers
Associate Professor of Teaching: Physical Education — 1949 (1976)

Lynn C. Schwandt — B.A., Coe College; M.A., University of Northern Iowa; M.A., Stanford University
Professor of Teaching: Mathematics — 1964 (1992)

Jane K. Sherwin Schwartz — B.A., Rockford College; M.A., Middlebury College; Ph.D., University of Michigan
Professor of French — 1962 (1991)

Ralph J. Schwartz — B.S., Northwestern University; M.A., Marquette University; Ph.D., Purdue University
Associate Professor of Speech-Language Pathology and Audiology — 1963 (1989)

Ruth Sevy — B.S., Central Missouri State University; M.A., University of Northern Colorado
Associate Professor of Health, Physical Education and Recreation: Health — 1967 (1980)

Edna Anderson Shores — B.S., M.A., Teachers College of Columbia University
Assistant Professor of Home Economics — 1947 (1973)

Francis E. Smith — B.A., University of Massachusetts; M.A., Ph.D., University of Iowa
Professor of English — 1950 (1979)

M. B. Smith — B.S., Northern State Teachers College, South Dakota; M.A., Ph.D., University of Minnesota
Professor of Speech — 1947 (1982)

Eloise P. Soy — B.A., M.A., University of Northern Iowa
Assistant Professor of Teaching: Elementary Education — 1965 (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)

Marguerite May Struble — B.A., M.A., Ph.D., University of Iowa
Professor of Teaching — 1924 (1969)

Alvin R. Sunseri — B.A., Southeastern Louisiana University; M.A., Ph.D., Louisiana State University
Professor of History — 1967 (1988)

Betty M. Swanson — B.S., University of Minnesota; M.S., University of Southern California
Assistant Professor of Physical Education — 1949 (1985)

Nathan M. Talbott — B.A., Western Michigan University; M.A., University of Michigan; Ph.D., University of Washington
Professor of Political Science and East Asian Studies — 1956 (1983)

E. Russell TePaske — B.A., Westmar College; M.A., University of Northern Iowa; Ph.D., Oklahoma State University
Professor of Biology — 1963 (1989)

Howard J. Thompson — B.A., University of Iowa; M.A., Harvard University; M.A., University of Iowa; Ph.D., Harvard University
Professor of History — 1955 (1986)

William R. Thrall — B.S., Wisconsin State University, LaCrosse; M.S., University of Colorado; Ph.D., University of Iowa
Professor of HPELS: Physical Education
Director of the School of Health, Physical Education and Leisure Services — 1960 (1991)

Jean Ann Trout — B.S.Ed., Wittenberg University; M.A., Ball State University; Ed.D., Indiana University
Associate Professor of Educational Psychology & Foundations — 1970 (1991)

Howard VanderBeek — B.A., University of Iowa; M.A., Ed.D., Columbia University
Professor of Teaching — 1948 (1981)

Francis D. Vilmain — B.A., University of Northern Iowa; M.S., University of Wisconsin
Professor of Physics — 1965 (1988)

Edward V. Voldæth — 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)

Lillian R. Wagner — B.A., University of South Dakota; M.A., University of Iowa; Ph.D., University of Wisconsin
Professor of Speech — 1950 (1978)

Willis H. Wagner — B.S., Central Missouri State University; M.A., University of Missouri
Professor of Industrial Technology — 1945 (1982)

Carl O. Wehner — B.A., M.A.Ed., University of Northern Iowa
Assistant Professor of Computer Science — 1961 (1992)

Wanda P. Wehner — B.A., M.A., University of Northern Iowa
Assistant Professor of Chemistry — 1966 (1992)

James D. Welch — B.S., M.Ed., University of Missouri
Associate Professor of Teaching: Music — 1962 (1987)

Donald B. Wendt — B.M., Northwestern University; M.A., University of Northern Iowa
Associate Professor of Woodwinds — 1958 (1989)

Donald R. Whitnah — A.A., Lincoln College, Illinois; B.A., M.A., Ph.D., University of Illinois, Urbana-Champaign
Professor of History — 1959 (1992)

Donald E. Wiederanders — B.S., Wartburg College; M.A., University of Minnesota
Professor of Teaching: Mathematics — 1958 (1991)

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)

Evelyn S. Wood — A.B., Marshall University; M.A., University of Michigan
Associate Professor of English — 1966 (1992)

Barbara Yager — B.S., M.A., The Ohio State University; Ed.D., University of Southern California
Professor of Physical Education — 1949 (1985)

▼ 1992-1994 Faculty

- ***Fred J. Abraham** — B.S., M.S., University of Wisconsin; M.A., Ph.D., University of Oregon
Professor of Economics — 1973 (1988)
Head of Department of Economics — 1982
- Ronald J. Abraham** — B.B.A., M.B.A., University of Wisconsin, C.P.A.
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)
- ***Pita O. Agbese** — B.Sc., Ahmadu Bello University; M.A., Northwestern University; M.B.A., Keller Graduate School of Management - Chicago; Ph.D., Northwestern University
Associate Professor of Political Science — 1989 (1992)
- ***Iradge Ahrabi-Fard** — B.A., M.A., University of Northern Iowa; Ph.D., University of Minnesota
Professor of Physical Education — 1972 (1984)
- Howard Aibel** — B.S., M.S., 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)
- Susan Allbee** — B.A., M.A., University of Northern Iowa
Instructor of Sociology — 1989
- Barbara F. H. Allen** — B.A., Wartburg College; M.A., University of Iowa
Instructor and Reference Librarian — 1989
- Radhi Al-Mabuk** — B.A., St. Mary's College - Winona; M.A., Winona State University; Ph.D., University of Wisconsin - Madison
Assistant Professor of Educational Psychology and Foundations — 1990
- ***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 — 1966 (1976)
- ***Wayne I. Anderson** — B.A., M.S., Ph.D., University of Iowa
Professor of Geology
Head of the Department of Earth Science — 1963 (1970)
- LaVerne W. Andreessen** — B.A., M.A., University of Northern Iowa; C.P.A.
Assistant Professor of Accounting — 1980
- ***Donald L. Ashbaugh** — A.A., Kirkwood Community College; B.A., University of Northern Iowa; M.S., University of Oregon; D.B.A., University of Kentucky
Assistant Professor of Management — 1980 (1985)
- Hollis S. Ashbaugh** — B.A., Central College; M.A., University of Iowa; C.P.A.
Instructor of Accounting — 1987
- ***William A. Ausmus** — B.A., Pacific University; M.A., Ph.D., Washington State University
Assistant Professor of Communication Studies — 1991
- ***C. Murray Austin** — B.A., M.A., Ph.D., University of Pennsylvania
Professor of Geography and Regional Science — 1973 (1987)
- ***Phyllis L. Baker** — B.A., San Diego State University; M.A., Ph.D., University of California, San Diego
Assistant Professor of Sociology — 1990
- Ronnie G. Bankston** — B.A., Baylor University; M.S., Oklahoma State University; Ph.D., University of Iowa
Assistant Professor of Broadcasting - 1991
- ***Francisco X. Barrios** — A.B., St. Louis University; M.A., Ph.D., University of Cincinnati
Professor of Psychology — 1979 (1989)
- Thomas M. Barry** — B.M.E., M.M., University of Colorado
Assistant Professor of Oboe and Saxophone — 1973 (1976)
- Duane E. Bartak** — B.A., Emporia State University; Ph.D., Kansas State University
Professor of Chemistry — 1992
Head of the Department of Chemistry — 1992
- ***Clemens Bartollas** — B.A., Davis and Elkins College; B.D., Princeton Theological Seminary; S.T.M., San Francisco Theological Seminary; Ph.D., Ohio State University
Professor of Sociology — 1981 (1985)
- ***Kenneth E. Basom** — B.A., Earlham College; M.A., Ph.D., University of Wisconsin
Assistant Professor of Political Science — 1991
- ***Kenneth E. Baughman** — B.A., Lawrence University; M.A., Ph.D., University of Chicago
Assistant Professor of English — 1972
- Diane L. Baum** — B.A., M.A., University of Northern Iowa
Assistant Professor of Mathematics — 1964 (1968)
- ***Melissa L. Beall** — B.S., M.A., Ph.D., University of Nebraska
Associate Professor of Communication Education — 1990
- ***Walter E. Beck** — B.M.E., Knox College; M.A., Ph.D., University of Illinois
Assistant Professor of Computer Science — 1980
- 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)
- Marcella Beckwith** — B.A., Indiana University; M.F.A., Northwestern University
Assistant Professor of Theatre — 1991
- ***Roy R. Behrens** — B.A., University of Northern Iowa; M.A., Rhode Island School of Design, Providence
Professor of Art — 1990
- Feredon (Fred) Behrooz** — B.S., University of Washington-Seattle; Ph.D., University of Pittsburgh
Professor of Physics — 1992
Head of Department of Physics — 1992
- ***Thomas R. Berg** — B.S., M.A., Ph.D., Ohio State University
Associate Professor of Educational Psychology & Foundations — 1972 (1980)
- ***Virginia A. Berg** — B.S., Tufts University; M.S., Ph.D., University of Washington
Professor of Biology — 1984 (1992)
- ***Gretta Berghammer** — B.A., University of Wisconsin, Green Bay; M.F.A., University of Texas
Associate Professor of Child Drama — 1984 (1989)
- ***Barton L. Bergquist** — B.S., North Park College; M.S., Northeastern Illinois University; Ph.D., University of Kansas
Professor of Biology — 1978 (1992)
Assistant Dean College of Natural Sciences — 1991
- 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 (1978)
- ***Cynthia A. Bickley-Green** — B.A., M.A., University of Maryland; M.A. George Washington University; Ph.D., University of Georgia
Assistant Professor of Art — 1990
- ***Steven E. Bigler** — B.A., M.F.A., University of Minnesota
Professor of Art — 1978 (1988)
- Harvey H. Bird** — B.A., John Hopkins University; M.S., California Institute of Technology; Ph.D., Stevens Institute of Technology
Assistant Professor of Physics — 1991
- Jennifer Bivens** — B.A., M.S., Illinois State; Ph.D., Clark University
Assistant Professor of Psychology — 1991
- ***Sheila Rose Bland** — B.A., Louisiana State University; M.A., M.F.A., University of New Orleans
Assistant Professor of Theatre — 1991
- ***Carl W. Bollwinkel** — B.S., Concordia Teachers College; M.S., Ph.D., Southern Illinois University
Professor of Teaching: Science Education — 1980 (1991)
- ***Myra R. Boots** — B.A., Grinnell College; M.A., University of Northern Iowa
Assistant Professor of Speech-Language Pathology — 1965 (1969)
- Kevin M. Born** — B.S., University of Nebraska
Captain and Assistant Professor of Military Science — 1991

Faculty

- ***Mary K. Bozilk** — B.S., University of Wisconsin, OshKosh; M.A., Bradley University; Ph.D., University of Illinois, Urbana-Champaign
Professor of Communication Education — 1982 (1992)
- Patrick V. Brannon** — B.A., M.M., University of Northern Iowa; Ph.D., Washington University
Assistant Professor of Music History — 1990
- ***Lynn A. Brant** — B.S., M.S., D.Ed., The Pennsylvania State University
Assistant Professor of Geology — 1982
- Karen Breitbart** — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Science Education — 1985 (1990)
- ***Allen B. Brierly** — B.A., M.A., Ph.D., Michigan State University
Assistant Professor of Political Science — 1990
- Dianna L. Briggs** — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Business Education — 1978 (1986)
- ***Leander A. Brown** — B.A., Fisk University; M.A., Roosevelt University; Ph.D., Iowa State University
Assistant Professor of Educational Psychology & Foundations — 1970
- Gregory L. Bruess** — B.A., Augsburg College; M.A., Ph.D., University of Minnesota
Assistant Professor of History — 1989 (1991)
- John E. Bruha** — B.S., University of Wisconsin, Stevens Point; M.S., University of Wisconsin, Madison
Assistant Professor of Mathematics — 1959 (1965)
- ***Reinhold K. Bubser** — Abitur, Ziehen-Realgymnasium (Frankfurt); B.A., Western Michigan University; M.A., Ph.D., Michigan State University
Professor of German — 1982 (1984)
- David J. Buch** — B.F.A., School of Art Institute, Chicago; B.A., Northeastern Illinois University; M.M., Ph.D., Northwestern University
Associate Professor of Music History — 1985 (1990)
- Cindy A. Bucknam** — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Physical Education — 1989
- Rebecca L. Burkhardt** — B.M., Southwestern University; M.M.E., North Texas State University
Instructor of Theory
Director of the Orchestra — 1988
- ***John M. Butler** — B.S., Indiana University; M.A., Ball State University; Ph.D., University of Iowa
Associate Professor of Public Relations — 1991
- Kay Butler-Nalin** — B.A., Central College; M.A., Ph.D., Stanford University
Assistant Professor of English — 1991
- F. William Button** — B.S., Drake University; J.D., University of Iowa
Instructor in Management — 1985
- ***Beverley Byers-Pevitts** — B.A., Kentucky Wesleyan College; M.A., Ph.D., Southern Illinois University - Carbondale
Professor of Communication and Theatre Arts
Dean of the College of Humanities and Fine Arts — 1990
- ***Jeffrey J. Byrd** — B.F.A., University of Alabama; M.F.A., University of Florida
Assistant Professor of Art — 1989
- ***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
Professor of Special Education — 1979 (1989)
Associate Dean of the 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)
- ***Christine L. Canning** — B.S., Bowling Green State University; M.A., Michigan State University; Ph.D., University of Michigan
Assistant Professor of Teaching and Coordinator of the Office of Student Field Experience — 1988
- ***Phyllis Scott Carlin** — B.S.E., Northeast Missouri State University; M.S., Ph.D., Southern Illinois University
Professor of Communication Studies — 1976 (1988)
- ***Barbara A. Caron** — B.A., College of St. Catherine; M.A., University of Wisconsin-Madison; M. Pub. Admin., West Virginia University; M.A., Ph.D., University of Minnesota
Assistant Professor of Design, Family and Consumer Sciences: Design and Human Environment — 1991
- ***Marcia J. Carter** — B.A., Hanover College; M.S., Re.D., Indiana University
Associate Professor of Leisure Services — 1987
- Jerry D. Casper** — B.A., M.A., Hays State
Instructor of Communication Studies — 1991
- Barbara Cassino** — B.F.A., M.F.A., University of Michigan
Associate Professor of Art — 1978 (1982)
- ***G. Scott Cawelti** — B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa
Associate Professor of English — 1968 (1986)
- ***James G. Chadney** — B.S., Portland State University; M.A., Ph.D., Michigan State University
Professor of Anthropology — 1968 (1985)
- ***Bruce B. Chamberlain** — B.M.E., M.M., D.M., Indiana University
Associate Professor of Choral Music — 1989
- ***James C. Chang** — B.S., Mount Union College, Ohio; Ph.D., University of California, Los Angeles
Professor of Chemistry — 1964 (1974)
- ***Paul Chao** — B.S., M.S., University of Canterbury, New Zealand; M.B.A., Washington State University; Ph.D., University of Washington
Associate Professor of Marketing — 1989
- April D. Chatham** — B.A., University of Central Arkansas; M.A., Ph.D., University of Oklahoma
Assistant Professor of Communications Studies — 1991
- Shing-Ling S. (Sarina) Chen** — B.A., Providence College, Taichung; M.A., University of Iowa
Assistant Professor of Communication Studies — 1990
- Hsi-Ling Cheng** — B.Law., National Chengchi University; M.A., Columbia University
Assistant Professor of History — 1966
- Jonathan N. Chenoweth** — B.M., B.A., Oberlin College; M.M., State University of New York-Stony Brook
Instructor of Cello — 1991
- Bruce A. Chidester** — B.M., Augustana College, Illinois; M.M., Northern Illinois University
Assistant Professor of Music in General Studies — 1969 (1972)
- C. David Christensen** — B.A., M.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 Design, Family and Consumer Sciences
Head of the Department of Design, Family and Consumer Sciences — 1986
- ***Roy Chung** — B.A., M.A., University of Wisconsin, Madison
Associate Professor of Geography and Demography — 1958 (1973)
- ***Frank L. Clark** — B.M., University of the Pacific; M.A., Stanford University; Ph.D., University of Akron
Assistant Professor of Music Theory — 1990
- ***Robert E. Clark** — B.A., Oklahoma State University; M.A., University of Oklahoma; Ph.D., University of Nebraska
Assistant Professor of Geography — 1965
- ***Dennis E. Clayson** — B.S., Ph.D., Brigham Young University
Associate Professor of Marketing — 1982 (1985)
- Scharron A. Clayton** — B.S., Central State University; M.Ed., University of Delaware; Ph.D., University of Iowa
Associate Professor of Philosophy and Religion
Assistant Dean of College of Humanities and Fine Arts — 1991
- ***William W. Clohesy** — B.S., Loyola University of Chicago; M.A., Southern Illinois University, Carbondale; 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., Ph.D., University of Minnesota
Associate Professor of Theatre — 1981 (1990)
- ***Richard W. Colburn** — B.A., Western Washington University; M.F.A., University of Minnesota
Associate Professor of Art — 1982 (1991)
- ***Phyllis B. Conklin** — B.S., Carson-Newman College, Tennessee; M.S., Ohio University; Ph.D., University of Tennessee, Knoxville
Assistant Professor of Design, Family and Consumer Sciences (Nutrition and Food Science) — 1968

- ***R. Forrest Conklin** — B.A., Howard Payne College; M.A., Baylor University; Ph.D., Ohio University
Professor of Communication Studies — 1968 (1975)
- Darlene E. Cooney** — B.S., Lockhaven University; M.A., University of Northern Iowa
Instructor of Teaching Preschool Handicapped Project — 1989
- ***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., Arkansas 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 — 1975 (1980)
- Cynthia M. Coulter** — B.S., M.L.S., Kent State University; Ph.D., University of Oklahoma
Associate Professor and Head of Acquisitions — 1989 (1992)
- Lyn Countryman** — B.A., Iowa State University; M.A., University of Iowa
Instructor of Teaching: Science Education — 1990 (1991)
- ***Lee E. Courtage** — B.A., Nebraska State Teachers College; M.A., Colorado State College; Ed.D., University of Northern Colorado
Professor of Special Education — 1968 (1971)
- ***Arthur T. Cox** — B.B.A., M.A., Ph.D., University of Iowa
Assistant Professor of Finance — 1989
- B. Kelth Crew** — B.A., Auburn University at Montgomery; M.A., Ph.D., University of Kentucky
Associate Professor of Sociology — 1985 (1992)
- John S. Cross** — B.S., M.S., University of Illinois, Urbana
Assistant Professor of Mathematics — 1963
- ***David R. Crownfield** — A.B., Harvard University; B.D., Yale University; Th.M., Th.D., Harvard University
Professor of Religion and Philosophy — 1964 (1970)
- Eleanor B. Crownfield** — B.A., Smith College; M.S.L.S., Simmons College
Assistant Professor and Catalog Librarian — 1964 (1977)
- ***Dennis C. Cryer** — B.A., M.A., University of Northern Iowa; Ph.D., University of Utah
Associate Professor of Health Education — 1976 (1989)
- ***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
- ***Dennis E. Dahms** — B.J., A.M., University of Missouri; M.A., University of Colorado; Ph.D., University of Kansas
Assistant Professor of Geography — 1990 (1991)
- ***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
Instructor of Teaching: Design, Family and Consumer Sciences — 1981 (1985)
- ***Charles H. Davis** — B.S., M.B.A., D.B.A., University of Tennessee
Professor of Marketing and Chair of Entrepreneur Studies — 1988
- ***Darrel W. Davis** — B.A., M.A., University of Northern Iowa; Ph.D., Oklahoma State University; C.P.A.
Associate Professor of Accounting — 1969 (1977)
- ***Thomas M. Davis** — B.A., Central Washington University; M.S., H.S.D., Indiana University
Associate Professor of Health Education — 1979 (1989)
- ***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
Associate Professor of Educational Administration & Counseling — 1984 (1990)
- ***Charles Van Loan Dédrick** — B.A., Brown University; M.A.T., Rollins College; M.Ed., Ed.D., University of Florida
Professor of Educational Psychology & Foundations — 1971 (1985)
- ***Victoria L. DeFrancisco** — B.A., Drake University; M.A., Ohio University; Ph.D., University of Illinois
Assistant Professor of Communication Studies
Director of Graduate Studies — 1988 (1989)
- Bernard C. DeHoff** — B.A., Franklin and Marshall College; M.A., Indiana University
Associate Professor of English — 1955 (1969)
- ***Kenneth J. DeNault** — B.S., Stanford University; M.S., University of Wyoming; Ph.D., Stanford University
Associate Professor of Geology — 1973 (1980)
- ***Ervin A. Dennis** — B.A., M.A., University of Northern Colorado; Ed.D., Texas A&M University
Professor of Industrial Technology — 1973
- Aricia DeVries** — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Secondary Resource Program — 1983 (1987)
- ***Forrest A. Dolgener** — B.S., M.Ed., Ph.D., University of Texas, Austin
Professor of Physical Education — 1979 (1991)
- ***Susann G. Doody** — B.S., Northern Illinois University; M.S., University of Wisconsin; Ph.D., University of Southern California
Professor of Physical Education — 1977 (1990)
Associate Dean of the College of Education — 1988
- ***Gregory M. Dofseth** — B.A., Luther College; M.A., Western Washington University; Ph.D., Iowa State University
Associate Professor of Mathematics — 1966 (1974)
- ***James L. Doud** — B.S.E., M.S.E., Drake University; Ph.D., University of Iowa
Professor of Educational Administration — 1970 (1987)
- Jacques F. Dubois** — B.S., Kearney State College; M.A., University of Nebraska
Assistant Professor of French — 1966 (1971)
- ***Jerry M. Duce** — B.A., M.A., 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 (1988)
- ***David R. Duncan** — B.S., M.S., North Dakota State University; Ph.D., University of Michigan
Professor of Mathematics (1963)
- James Dunn** — B.S., University of Michigan; M.S., Ph.D., University of Kentucky
Assistant Professor of Biology — 1991
- ***Norris M. Durham** — B.S., West Chester State College, Pennsylvania; M.A., New York University, New York; Ph.D., The Pennsylvania State University
Professor of Anthropology — 1979 (1990)
- Lynn K. Dykstra** — B.S., Creighton University; M.A., Ed.S., University of Iowa
Instructor of Teaching: Educational Media — 1984 (1986)
- ***J. Phillip East** — B.S., Southwestern Oklahoma State University; M.S., Ph.D., University of Oregon
Associate Professor of Computer Science Education — 1985 (1990)
- ***Frje R. Echeverria** — B.A., Florida Presbyterian College; M.F.A., University of Arkansas
Professor of Art — 1969 (1985)
- ***Jay. A. Edelnant** — B.A., MacMurray College; M.A., Ph.D., Northwestern University
Professor of Performance Studies — 1971 (1989)
Director of Theatre
- ***Christopher R. Edginton** — B.A., San Jose State University; M.S., University of Illinois; Ph.D., University of Iowa
Professor of Leisure Services
Director of Health, Physical Education and Leisure Services — 1991
- Pamela J. (Jones) Edwards** — B.A., M.A., University of Northern Iowa
Instructor of Public Relations — 1985

Faculty

- *H. Stephan Egger** — B.S., M.S., University of Wisconsin, Stout; Ed.D., Texas A&M University
Associate Professor of Industrial Technology — 1985 (1991)
- *John L. Elklor** — B.A., Wichita State University; M.A., Ph.D., Northwestern University
Professor of History — 1963 (1970)
- *David K. Else** — B.S., Westmar College; M.A., University of South Dakota; Ph.D., Iowa State University
Associate Professor of Education
Director, Institute for Educational Leadership — 1988 (1990)
- *Ralph D. Engardt** — 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
Associate Professor of Physical Education — 1985 (1991)
- Donald R. Erusha** — B.A., Coe College; M.A., University of Iowa
Associate Professor of Physical Education — 1963 (1972)
- *Susan E. Etscheidt** — B.A., M.A.E., University of Northern Iowa; Ph.D., University of Minnesota
Associate Professor of Special Education — 1977 (1990)
- *Mohammed F. Fahmy** — B.S., Ain-Shams University, Cairo; M.S., Rensselaer Polytechnic Institute; Ph.D., Michigan State University
Professor of Industrial Technology — 1983 (1990)
Head of the Department of Industrial Technology — 1990
- Michael Fanelli** — B.M., University of Illinois; M.A., University of Missouri
Instructor of Teaching: Music — 1987
- Catherine S. P. Farris** — B.A., M.A., University of Texas, Austin; Ph.D., University of Washington
Assistant Professor of Anthropology — 1991
- *Phillip M. Fass** — B.F.A., University of Wisconsin, Milwaukee; M.F.A., University of Illinois at Urbana, Champaign
Assistant Professor of Art — 1991
- Mitchell Fay** — B.A., University of Wisconsin, Eau Claire; M.P.S., Cornell University
Instructor of Communication Studies — 1991
- *John T. Fecik** — B.S., California State University (Pennsylvania); M.Ed., Ed.D., University of Maryland
Professor of Industrial Technology — 1981 (1985)
- *Anne C. Federlein** — B.A., University of Detroit; M.A., Oakland University; Ph.D., University of Michigan
Professor of Early Childhood Education: Director of Regent's Center for Early Developmental Education — 1989
- Richard Fehlman** — B.A., St. Procopius College; M.A., University of Iowa
Assistant Professor of English — 1991
- Linda Fernandez** — B.A., DePauw University; M.A., Indiana University; Ed.D., Virginia Tech
Assistant Professor of Teaching
Director of Malcolm Price Laboratory School — 1991
- William J. Ferrara** — B.A., Kenyon College, Ohio; M.S.M., Indiana University
Associate Professor of Opera/Music Theatre — 1984 (1992)
- Mark A. Fienup** — B.A., University of Northern Iowa; M.S., Iowa State University
Assistant Professor of Computer Science — 1985
- Rosa Maria E. Findlay** — B.A., University of Puerto Rico; M.A., University of Northern Iowa
Instructor of Teaching: Foreign Language — 1964
- *Judith M. Finkelstein** — B.S., University of Illinois; M.A., University of Northern Iowa; Ph.D., University of Minnesota
Professor of Teaching: Elementary Education — 1968 (1989)
- D. Louis Finsand** — B.S., University of Wisconsin, LaCrosse; M.A., University of Northern Iowa
Professor of Teaching: Science Education — 1964 (1979)
- *Angeleita S. Floyd** — B.M., Stetson University; M.M., M.M.E., D.M., Florida State University
Associate Professor of Flute — 1986 (1991)
- *Thomas M. Fogarty** — B.A., Catholic University of America; M.A., Georgetown University; M.A., Ph.D., University of Pennsylvania
Associate Professor of Geography and Public Policy — 1989
- *Stephen J. Fortgang** — B.A., University of Chicago; M.A., Ph.D., Syracuse University
Associate Professor of Educational Psychology & Foundations — 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)
- *Mary L. Franken** — B.S., University of Wisconsin, Stout; M.S., University of Wisconsin, Madison; Ed.D., Drake University
Professor of Design, Family and Consumer Sciences (Family Services) — 1969 (1991)
- Ralph L. Frasca** — B.A., Utica College; M.A., Indiana University
Assistant Professor of English — 1990
- *Taggart Frost** — B.S., M.S., Ph.D., Brigham Young University
Associate Professor of Management — 1978 (1984)
- Gail E. Froyen** — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Educational Media — 1990
- *Len A. Froyen** — B.A., University of Northern Iowa; M.A., Michigan State University; Ed.D., Indiana University
Professor of Educational Psychology & Foundations — 1958 (1973)
- Crislie M. Frye** — B.S., Bowling Green State University; M.B.A., University of Northern Iowa
Instructor in Management — 1989
- *James F. Fryman** — B.A., Denison University; M.A., Miami University, Ohio; Ph.D., University of North Carolina, Chapel Hill
Associate Professor of Geography — 1978 (1990)
- Patricia T. Fultz** — B.S., Colorado State University; M.S., Ed.D., Oklahoma State University
Assistant Professor of Leisure Services — 1991
- Jeffrey L. Funderburk** — 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 Educational Psychology & Foundations — 1974 (1980)
- *Stephen J. Gales** — B.A., Hamilton College; M.A., Ph.D., Indiana University
Professor of English — 1978 (1986)
- *Joyce A. Gault** — B.A., University of Northern Iowa; M.M., D.M., Northwestern University
Professor of Piano — 1957 (1969)
- *Patricia L. Geadelmann** — 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)
- *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
- *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)
- Richard P. Glockner** — B.A., New York University; M.F.A., Temple University
Associate Professor of Theatre — 1991
- *Karen A. Glynn** — B.A., St. Joseph's College; M.B.A., University of Maine; D.B.A., Southern Illinois University
Assistant Professor of Marketing — 1985 (1987)
- *Cynthia A. Goatley** — B.A., M.A., University of Arkansas; Ph.D., Bowling Green State University
Assistant Professor of Theatre — 1991
- Joanne A. Goldman** — B.A., M.A., Ph.D., State University of New York, Stony Brook
Instructor of History — 1990

- 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)
Coordinator of Graduate M.B.A. Programs
- ***Randy E. Grabowski** — B.M.E., Indiana University; M.M., University of Nevada, Reno; D.M., Indiana University
Associate Professor of Trumpet — 1986 (1992)
- Jack E. Graham** — B.M.E., Wichita State University; M.M., North Texas State University
Associate Professor of Clarinet — 1967 (1982)
- ***Kenneth N. Green** — B.S., Iowa State University; M.A., University of Northern Iowa; Ed.D., University of Arkansas
Associate Professor of Leisure Services
Assistant Director of Health, Physical Education and Leisure Services — 1967 (1991)
- ***Wanda K. Green** — B.A., M.A., Ed.D., University of Northern Colorado
Assistant Professor of Physical Education — 1967 (1975)
- ***Mitchell A. Greene, Jr.** — B.A., Dillard University; M.S., Case Western University; Ph.D., University of Iowa
Associate Professor of Social Work — 1972 (1977)
- ***Mark A. Grey** — B.A., University of Northern Colorado; M.A., Eastern New Mexico University; Ph.D., University of Colorado, Boulder
Assistant Professor of Anthropology — 1990
- Melanie Griffith** — B.A., Northwestern; M.A., University of Northern Colorado
Instructor of Teaching: Music — 1988 (1989)
- Sue Grosboll** — B.A., University of Illinois, Urbana; M.A., Ph.D., University of Wisconsin, Madison
Director/Curator, Museum — 1992
Adjunct Professor of Anthropology — 1992
- Cheryl Grosvenor** — B.A., Morningside College
Instructor of Teaching: Early Childhood Education — 1990
- ***Florence Guido-DiBrito** — B.A., Briarcliff College; M.A., Ball State University; Ph.D., Texas A&M University
Assistant Professor of Educational Administration — 1991
- ***Pola B. Gupta** — B.E., S.V. University; M.B.A., Ph.D., SUNY at Buffalo
Assistant Professor of Marketing — 1991
- ***Robin D. Guy** — B.M.E., Baldwin-Wallace College Conservatory of Music; M.M., Baylor University; D.M.A., University of Arizona
Assistant Professor of Accompanying — 1990
- Joel K. Haack** — B.A., M.S., M.S., Ph.D., University of Iowa
Professor of Mathematics — 1991
Head of the Department of Mathematics — 1991
- ***Carlín F. Hageman** — B.A., M.A., Ph.D., University of Colorado
Associate Professor of Speech-Language Pathology — 1982 (1991)
- 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 of 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)
- ***Nancy P. Hamilton** — B.A., San Jose State University; M.A. California State University, Los Angeles; Ph.D., University of Illinois
Assistant Professor of Physical Education — 1987
- ***Glenn L. Hansen** — B.A., M.A., University of Northern Iowa; Ph.D., Texas A&M University
Associate Professor of Management
Dean of University 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
Associate Professor of Choral Music — 1986 (1992)
- ***Carole J. Hanson** — B.A., Luther College; M.A., Michigan State University; Ed.D., University of Nebraska, Lincoln
Associate Professor of Leisure Services — 1981
- ***Curtiss D. Hanson** — B.S., University of Nebraska, Omaha; Ph.D., Texas A & M University
Assistant Professor of Chemistry — 1989
- James G. Hanson** — B.S., Southwest Missouri State; M.S.W., University of Georgia; Ph.D., University of Kansas
Assistant Professor of Social Work — 1990
- ***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)
- ***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)
- Timothy L. Hardy** — B.S., Oregon State University; M.S., Idaho State University
Assistant Professor of Mathematics — 1989
- ***Jeanne McLain Harms** — B.A., M.A.E., Ed.S., University of Northern Iowa; Ph.D., Ohio State University
Professor of Education: Reading — 1961 (1990)
- Judith F. Harrington** — B.S., Boston College; M.A., University of Iowa
Assistant Professor of Speech-Language Pathology — 1965 (1969)
- ***Virginia L. Haub** — B.S., Iowa State University; M.A., Ed.S., University of Northern Iowa; Ph.D., Iowa State University
Associate Professor of Educational Psychology & Foundations
Director of Culture and Intensive English Program
Director of Program Development — 1966 (1983)
- Carol Haug** — B.S., M.S., Eastern Illinois University; Ph.D., University of Iowa
Assistant Professor of Teaching
Coordinator of Student Teaching — 1991
- Thomas L. Hausmann** — B.A., University of Minnesota, Morris; M.S., Purdue University
Assistant Professor of Computer Science — 1988
- ***Richard R. Hawkes** — 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 — 1969 (1984)
- Argelia C. Hawley** — B.S., Kearney State College
Instructor of Teaching: Elementary Foreign Language — 1983
- ***Don C. Hawley** — B.A.Ed., Kearney State College; M.A., Ph.D., University of Iowa
Professor of Spanish — 1966 (1970)
- ***Richard Allen Hays, Jr.** — B.A., Johns Hopkins University; M.A., Ph.D., University of North Carolina
Associate Professor of Political Science — 1979 (1985)
- ***James B. Heian** — B.A., Stanford University; Ph.D., University of Utah; C.P.A.
Associate Professor of Accounting — 1991
- ***Marvin O. Heller** — B.S., M.E., University of Nebraska; Ed.D., University of Northern Colorado
Professor of Education: Elementary — 1970 (1985)
- ***Louis R. Hellwig** — B.A., M.A., New Mexico State University; Ph.D., University of Missouri, Columbia
Assistant Professor of Psychology — 1964 (1973)
- ***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

Faculty

- Eric Henderson** — B.A., Portland State University; J.D., Ph.D., University of Arizona
Assistant Professor of Anthropology — 1990
- Glen F. Henry** — B.S., M.S., Nebraska State College, Chadron
Associate Professor of Physical Education — 1966 (1974)
- *Larry D. Hensley** — B.A., Southern Methodist University; M.S., Indiana University; Ed.D., University of Georgia
Professor of Physical Education — 1979 (1990)
- Alberto H. Hernandez** — B.A., University of Puerto Rico; M.L.S., State University of New York; M.A., Ed.D., Columbia University
Assistant Professor and Art and Music Librarian — 1991
- *Melissa L. Heston** — B.S., Oklahoma State University; M.S., Ph.D., Indiana University
Assistant Professor of Educational Psychology & Foundations — 1989
- James J. HiDuke** — B.A., St. Joseph's College, Indiana; M.A., Marquette University
Assistant Professor of English — 1967 (1973)
- *Clifford L. Highnam** — A.A., Shagit Valley College; B.A., Western Washington State College; M.S.P.A., University of Washington; Ph.D., Bowling Green State University
Associate Professor of Speech-Language Pathology — 1975 (1982)
- *Leah F. Hiland** — B.S., M.A.L.S., Ph.D., Indiana University
Assistant Professor of Library Science — 1972
- *Thomas W. Hill** — B.S., University of Wisconsin; Ph.D., University of Pennsylvania
Professor of Anthropology — 1972
- Robert A. Himschoot** — B.A., University of Northern Iowa; J.D., University of Iowa
Instructor in Management — 1983
- *Thomas A. Hockey** — B.S., Massachusetts Institute of Technology; M.A., M.S., Ph.D., New Mexico State University
Assistant Professor of Astronomy — 1988
- Lowell Hoefft** — B.S., University of Wisconsin, Stevens Point; M.A., University of Northern Iowa
Instructor of Teaching: Foreign Language — 1987
- Peter L. Hoekje** — B.S., Ph.D., Case Western Reserve University
Assistant Professor of Physics — 1991
- *George R. Hoffman** — B.A., Hastings College; Ph.D., Washington State University
Professor and Head of Biology — 1989
- Randy A. Hogancamp** — B.A., University of Northern Iowa; M.M., Northwestern University
Assistant Professor of Percussion — 1972 (1976)
- *Charles W. Holcombe** — B.A., M.A., Ph.D., University of Michigan
Assistant Professor of History — 1989
- *Margaret G. Holland** — B.A., M.A., Boston College; Ph.D., SUNY, Buffalo
Assistant Professor of Philosophy — 1991
- Melanie J. Holmes** — B.A., Northwestern; M.A., University of Northern Colorado
Instructor of Teaching: Music — 1988 (1989)
- *Gloria Kirkland Holmes** — B.A., Fisk University; M.S., Ph.D., Indiana State University
Associate Professor of Teaching: Early Childhood Education — 1978 (1982)
- *A. John Holstad** — B.S., Northern State College, South Dakota; M.M., D.M., Northwestern University
Associate Professor of Piano — 1962 (1973)
- Ronald D. Hook** — B.A., M.B.A., University of Northern Iowa
Instructor of Economics — 1989
- *Gary Hoppes** — B.A., University of Northern Iowa; M.S., Ph.D., Iowa State University
Assistant Professor of Industrial Technology — 1991
- *Ching D. Horng** — B.A., Florida State University; Ph.D., Texas A&M University
Assistant Professor of Management — 1991
- *Grace Ann Hovet** — B.A., College of St. Catherine; M.A., University of Minnesota; Ph.D., University of Kansas
Professor of English — 1969 (1991)
- *Theodore R. Hovet** — 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
Associate Director of Health, Physical Education and Leisure Services — 1973 (1991)
- *Patricia Hughes** — B.M., M.M., Western Michigan University; Ed.D., University of Illinois
Assistant Professor of Music Education — 1988
- *Gerald W. Intemann** — B.S., M.S., Ph.D., Stevens Institute of Technology
Professor of Physics — 1980
Dean of the College of Natural Sciences — 1991
- *Hans R. Isakson** — B.S., Ph.D., University of Wisconsin, Milwaukee
Professor of Finance
Director of the Real Estate Education Program — 1990
- Margaret Ishler** — B.A., M.A., Pennsylvania State University; Ed.D., University of Toledo
Professor of Education
Head of the Department of Curriculum and Instruction — 1990
- *Dale R. Jackson** — B.S.Ed., M.S.Ed., Ed.S., Western Illinois University; Ed.D., Northern Illinois University
Professor of Educational Administration and Counseling
Head of the Department of Educational Administration and Counseling — 1987
- *Vivian R. Jackson** — B.A., Rosary College; M.Ed., DePaul University; Ph.D., Northwestern University
Associate Professor, Department of Educational Administration and Counseling
Associate Dean for Student Services, Graduate College — 1990
- *Stephen T. Jakubowski** — B.S., St. Joseph's College, Indiana; M.S., Central Michigan University; Ph.D., Kent State University; C.P.A.
Assistant Professor of Accounting — 1989
- Edward Jamosky** — B.A., M.A. in Russian, M.A. in Library Science, University of Wisconsin
Assistant Professor of Russian — 1965 (1969)
- *Michael Janopoulos** — B.S., Northwestern University; M.A., University of Northern Iowa; M.A., Northwestern University; Ph.D., Ohio State University
Assistant Professor of English — 1989
- *Allen D. Jedlicka** — B.A., San Diego State University; Ph.D., Northwestern University
Professor of Management (Organizational Behavior) — 1973 (1982)
- Ann E. Jensen** — B.S., Iowa State University
Instructor in Mathematics — 1984
- Marvin D. Jensen** — B.A., Midland Lutheran College; M.A., University of Kansas
Assistant Professor of Communication Studies — 1966 (1969)
- *M. Lathon Jernigan** — B.M., M.M., Southern Methodist University; D.M.A., University of Texas, Austin
Associate Professor of Theory — 1971 (1977)
- *Mohammed M. Jibaly** — B.S., Lebanese University; M.S., Syracuse University; D.Sc., University of Texas, Arlington
Assistant Professor of Physics — 1989
- *Charles D. Johnson** — B.S., Florida State University; M.I.E., Western Carolina University; Ed.D., North Carolina State University
Associate Professor of Industrial Technology — 1981 (1987)
- *Donn M. Johnson** — B.S., Colorado State University; M.A., Washington State University; Ph.D., Colorado State University
Assistant Professor of Economics — 1989
- *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
- *Ronald W. Johnson** — B.M.E., Texas Technical University; M.A., California State University, Northridge; Ed.D., University of Illinois
Associate Professor of Instrumental Music — 1982 (1988)
- Valdon L. Johnson** — B.A., M.A., University of Northern Iowa
Assistant Professor of English — 1968 (1971)

- *Annie Jones** — B.A., Southern Illinois University; M.A., Eastern Michigan University; Ph.D., University of Michigan
Assistant Professor of Counselor Education — 1988
- Debra J. Jordan** — B.S., Slippery Rock University; M.S., Western Illinois University; Re.D., Indiana University
Assistant Professor of Leisure Services — 1991
- *Sue Joslyn** — B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa
Assistant Professor of Health Education — 1990
- *Elaine B. Kalmar** — B.A., M.A., Ph.D., University of New Mexico
Associate Professor of English — 1971 (1978)
- *Lawrence L. Kavich** — B.S., M.S., Ed.D., University of California, Los Angeles
Professor of Educational Psychology & Foundations — 1977
- *Noel H. Kaylor** — B.A., University of Tennessee, Knoxville; M.A., Monterey Institute; M.A., Ph.D., Vanderbilt University
Associate Professor of English - 1989 (1992)
- *Thomas W. Keefe, III** — B.A., University of Colorado; M.S.W., University of Denver; D.S.W., University of Utah
Professor of Social Work — 1973 (1982)
Head of the Department of Social Work — 1990
- Thomas J. Keller** — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Secondary Counselor — 1988 (1989)
- *James L. Kelly** — B.S., M.S., Mankato State College; Ph.D., University of Nebraska, Lincoln
Professor of Teaching
Coordinator of Student Teaching — 1969 (1990)
- *Kathleen A. Kerr** — B.A., M.A., Stanford University, Ph.D., Texas Women's University
Associate Professor of Physical Education — 1989
- Thomas L. Kessler** — B.G.S., M.A., 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)
- *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 (1989)
- *Syed N.U.A. Kirmani** — B.Sc., M.Sc., Lucknow University, India; Ph.D., Aligarh Muslim University, India
Professor of Mathematics — 1984 (1991)
- *Michael L. Klassen** — B.A., Tabor College; M.A.T., Mennonite Brethren Biblical Seminary; M.S., Ph.D., Kansas State University
Associate Professor of Marketing — 1987 (1992)
- Kay E. Klier** — B.S., Iowa State University; M.A., Claremont College; Ph.D., Iowa State University
Assistant Professor of Biology — 1989
- Aurelia L. Klink** — B.A., M.A., University of Northern Iowa
Director Professional and Educational Seminars and Institutes
Assistant Professor of Management — 1966 (1985)
- *Jerome F. Klinkowitz** — B.A., M.A., Marquette University; Ph.D., University of Wisconsin
Professor of English — 1972 (1976)
- *Susan B. Koch** — B.S., Dakota State College; M.A., Ed.D., University of Northern Iowa
Assistant Professor of Health Education — 1983 (1988)
- *Fred W. Kolkhorst** — B.S., M.Ed., Ph.D., University of Missouri - Columbia
Assistant Professor of Physical Education — 1991
- *Fritz H. Konig** — B.A., University of Heidelberg; Candidatus Magisterii, University of Oslo; M.A., Ph.D., University of Iowa
Professor of German — 1967 (1975)
- *Jurgen Koppensteiner** — Ph.D., University of Graz, Austria
Professor of German — 1968 (1976)
- *Beverly A. Kopper** — B.A., State University of New York-Buffalo; M.S.S.W., University of Wisconsin, Madison; M.S., Ph.D., Iowa State University
Assistant Professor of Psychology — 1990
- *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** — B.A., M.A., University of North Dakota
Assistant Professor of Sociology
Associate Director of Center for Social and Behavioral Research — 1965 (1978)
- *Marilou DeWall Kratzenstein** — B.A., Calvin College; M.A., Ohio State University; D.M.A., University of Iowa
Acting Director School of Music — 1992
Professor of Organ and Music History — 1975 (1983)
- *Randall G. Krieg** — B.A., University of Wisconsin, Madison; M.A., Ph.D., University of Colorado, Boulder
Associate Professor of Economics — 1987 (1992)
- *Marian E. Krogmann** — B.S., South Dakota State University; M.A., Ph.D., University of Iowa
Associate Professor of Political Science — 1967 (1980)
- *Dean A. Kruckeberg** — B.A., Wartburg College; M.A., Northern Illinois University, DeKalb; Ph.D., University of Iowa
Associate Professor of Public Relations — 1983 (1989)
- *Robert R. Krueger** — B.A., Ph.D., University of Minnesota
Associate Professor of Spanish and Portuguese — 1984 (1990)
- *Roger A. Kueter** — B.A., Loras College; M.A., Ed.D., Indiana University
Professor of Education: Curriculum & Instruction — 1970 (1988)
Head of the Department of Teaching — 1990
- *Loretta Sylvia Kuse** — B.S., University of Wisconsin - Stevens Point; M.A., Ph.D., University of Iowa; M.Div., Wartburg Theological Seminary
Assistant Professor of Education: Elementary — 1972
- 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 of Access Services — 1987
- William T. Lawson** — B.A., M.S., University of Northern Iowa
Instructor of Physical Education — 1984
- Cherin A. Lee** — B.A., M.A., University of Northern Iowa
Instructor of Biology — 1981
- *Key Ton Lee** — B.S., Union College, Nebraska; M.A., Andrews University, Michigan; Ph.D., University of Oklahoma
Professor of Educational Psychology & Foundations — 1967 (1978)
- *Min H. Lee** — B.S., M.S., Seoul National University, Korea; Ph.D., State University of New York - Stony Brook
Associate Professor of Mathematics — 1986 (1991)
- Robert E. Lee** — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Physical Education — 1981 (1986)
- *Jay T. Lees** — B.A., Gettysburg College; M.A., Ph.D., Tulane University
Assistant Professor of History — 1987
- *Michael J. Leiber** — B.A., Marquette University; M.A., Ph.D., State University of New York at Albany
Assistant Professor of Sociology — 1988 (1989)
- *Robert T. Lembke** — B.S., M.S., Mankato State College; Ed.D., University of South Dakota
Associate Professor of Educational Administration & Counseling — 1974
- Lucille J. Lettow** — B.A., University of Northern Iowa; M.A.(LS), University of Missouri; M.A., University of Northern Iowa
Associate Professor and Youth Collection Librarian — 1980 (1990)
- Larry P. Leutzinger** — B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa
Assistant Professor of Mathematics — 1988
- *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
- *Jeremy R.T. Lewis** — B.A., M.A., Oxford University, U.K.; M.A., Ph.D., Johns Hopkins University
Assistant Professor of Political Science — 1990
- *Junko Y. Lewis** — B.S., M.S., Baylor University; Ph.D., University of North Texas
Assistant Professor of Education: Reading — 1989
- Yan Li** — B.S., Beijing Agricultural University; M.S.L.I.S., Sheffield University
Instructor and Reference Librarian — 1991
- Jingyu Lin** — B.S., State University of New York, College at Oneonta; M.S., Ph.D., Syracuse University
Assistant Professor of Physics — 1990

Faculty

- *Timothy Lindquist** — B.S., Northern Michigan University; M.B.A., Michigan State University; Ph.D., University of Colorado - Boulder
Assistant Professor of Accounting — 1991
- *Thomas K. Lindsay** — B.A., M.A., Northern Illinois University; Ph.D., University of Chicago
Associate Professor of Political Science — 1989 (1992)
- *Thomas L. Little** — B.A., Macalester College; M.Ed., University of Mississippi; Ed.D., Memphis State University
Associate Professor of Special Education — 1973 (1978)
- *Bonnie H. Litwiler** — B.S.Ed., M.S.Ed., Illinois State University; M.A.T., Ed.D., Indiana University
Professor of Mathematics — 1968 (1976)
- *Robert F. Long** — B.S., Western Illinois University; M.S., Ph.D., University of Illinois, Champaign
Associate Professor of Leisure Services — 1989
- John C. Longnecker** — B.A., M.A., University of Northern Iowa
Assistant Professor of Mathematics — 1966 (1980)
- Joan K. Loslo** — B.A., Wartburg College; M.A.L.S., University of Iowa; M.A., University of Northern Iowa
Instructor and Serials Librarian — 1987
- *Barbara S. Lounsberry** — B.A., M.A., University of Northern Iowa; Ph.D., University of Iowa
Professor of English — 1976 (1990)
- *Julie C. Lowell** — B.A., Ohio Wesleyan University; M.Ed., Boston University; M.A., Ph.D., University of Arizona
Assistant Professor of Anthropology — 1987
- *Gene M. Lutz** — B.S., M.S., Ph.D., Iowa State University
Professor of Sociology — 1973 (1986)
Director of Center for Social and Behavioral Sciences
- 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)
- Annette F. Lynch** — B.A., M.A., University of Iowa; Ph.D., University of Minnesota
Assistant Professor of Design, Family and Consumer Sciences (Clothing and Textiles) — 1991 (1992)
- *Tony N. McAdams** — B.A., University of Northern Iowa; M.B.A., Columbia University; J.D., University of Iowa
Professor of Management — 1982
- *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)
- Diane McCarty** — B.A., William Penn College; M.A., University of Northern Iowa
Instructor of Teaching: Elementary Education — 1990
- 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
Professor of Economics — 1982 (1991)
- *James G. McCullagh** — A.B., California State College, Chico; M.S.S.W., University of Missouri, Columbia; Ed.D., Northern Illinois University, DeKalb
Professor of Social Work — 1981 (1989)
- *Norman L. McCumsey** — B.S., Oregon College of Education; M.Ed., University of Oregon; Ed.D., Colorado State College
Associate Professor of Educational Administration & Counseling — 1967 (1970)
- *Daniel L. McDonald** — B.S., M.S., Ed.D., Oklahoma State University
Assistant Professor of Leisure Services
Coordinator of Leisure Services Division — 1985
- Jean M. McDonald** — B.M., Simpson College; M.A., University of Iowa
Assistant Professor of Voice — 1988 (1989)
- *LeRoy A. McGrew** — B.A., Knox College, Illinois; M.S., Ph.D., University of Iowa
Professor of Chemistry — 1977
- *Richard A. McGuire** — B.S., M.A., Northern Michigan University; Ph.D., Bowling Green State University
Associate Professor of Speech-Language Pathology — 1989 (1992)
- David McKibben** — B.A., M.A., University of Nebraska; Ph.D., State University of New York, Buffalo
Instructor of History — 1989
- *John B. MacArthur** — M.A., University of Lancaster, Lancashire, England; Ph.D., University of Wales; F.C.C.A. (London)
Associate Professor of Accounting — 1981 (1989)
- *Christine A. Macfarlane** — B.A., Wayne State College; M.S., Ph.D., Utah State University
Assistant Professor of Special Education — 1991
- Diane MacLeannan** — B.A., University of Northern Iowa
Instructor of Teaching: Elementary Education — 1989
- *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)
- James Malts** — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Mathematics — 1991
- Kirk P. Manfredi** — B.S., Rocky Mountain College; Ph.D., Montana State University
Assistant Professor of Chemistry — 1991
- Joseph J. Marchesani** — B.A., Fordham University; M.S., Brooklyn College; M.Ed., Temple University
Assistant Professor of Education: Media — 1972
- Barbara J. Mardis** — B.A., Shimer College; M.B.A., University of Northern Iowa
Instructor of Economics — 1981
- *Nancy A. Marlin** — B.A., State University of New York; M.S., Oklahoma State University; Ph.D., City University of New York
Professor of Psychology
Vice President and Provost — 1989
- *Jeanette J. Marsh** — B.S., Mankato State College; M.S., University of New Mexico; Ph.D., University of Minnesota
Assistant Professor of Physical Education
Coordinator of General Education Division — 1975
- *Ripley E. Marston** — B.S., James Madison University; M.S., University of Tennessee, Knoxville; Ph.D., University of Iowa
Associate Professor of Physical Education — 1976 (1987)
- *Anna C. Martin** — B.F.A., M.A., University of Michigan; Ed.D., University of Houston
Assistant Professor of Art — 1990
- Katherine F. Martin** — A.B., Douglas College, Rutgers; M.S.L.S., M.A., University of North Carolina
Assistant Professor
Head of Collections Management — 1982 (1988)
- *Robert F. Martin** — B.A., Wofford College, South Carolina; M.A., Ph.D., University of North Carolina, Chapel Hill
Professor of History — 1981 (1990)
- Cathy Martinez** — B.S., Arizona State University; M.S., Ph.D., Ohio State University
Assistant Professor of Health, Physical Education and Leisure Services
Director of the Institute for Youth Leadership — 1992
- Tina L. Mawhorr** — B.S., Bowling Green State University; M.A., University of Cincinnati
Instructor of Sociology — 1990
- *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 Education: Early Childhood — 1982
- *David W. May** — B.G.S., University of Kansas; M.A., University of California, Davis; Ph.D., University of Wisconsin, Madison
Associate Professor of Geography — 1985 (1990)
- Charles L. Means** — B.S., Southern Illinois University; M.A., Webster College; Ph.D., St. Louis University
Adjunct Associate Professor of Educational Psychology & Foundations
Associate Vice President for Academic Affairs — 1983 (1989)

- Marilyn Mercado** — B.A., Point Park College; M.L.S., University of Pittsburgh
Assistant Professor and Head of Catalog — 1989
- Jane C. Mertesdorf** — B.S., Mankato State College; M.A., Ball State University; Ph.D., Iowa State University
Assistant Professor of Physical Education — 1966 (1975)
- Susan L. Meyeraan** — 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
- ***Michael H. Millar** — B.A., Harvard University; M.S., Ph.D., University of Chicago
Professor of Mathematics — 1962 (1975)
- Kim (Klaseus) Miller** — B.A., Wartburg College; M.S., Northwest Missouri State University
Instructor of Teaching: Special Education — 1985
- ***Geofrey T. Mills** — B.S., M.S., Ph.D., University of Illinois
Associate Professor of Finance
Assistant Dean of the College of Business Administration — 1983 (1988)
- Robert L. Minter** — B.A., M.A., Miami University of Ohio; Ph.D., Purdue University
Professor of Management
Dean of the College of Business Administration — 1990
- Ezzat Mirhakkak** — B.S., Esfahan University, Iran; M.S., Shiraz University, Iran; M.S., University of Iowa
Instructor in Computer Science — 1991
- Craig K. Mitchell** — B.S., Iowa State University; M.B.A., University of Northern Iowa
Instructor of Economics — 1990
- ***Karen S. Mitchell** — B.S., M.S., Southern Illinois University; Ph.D., Louisiana State University
Assistant Professor of Performance Studies — 1991
- ***Carmen Montecinos** — B.A., Universidad Catolica De Chili-Santiago; M.S., Ph.D., Southern Illinois University - Carbondale
Assistant Professor of Educational Psychology and Foundations — 1990
- ***Janey Montgomery** — A.B., M.S., Fort Hays State University; Ph.D., Iowa State University
Assistant Professor of Teaching
Coordinator of Student Teaching — 1990
- Gary Moore** — B.S., Iowa State University; J.D., University of Iowa; M.B.A., Ph.D., Arizona State University
Assistant Professor of Finance — 1992
- Carol E. Morgan** — B.A., Washington University; M.A., University of Northern Iowa; Ph.D., University of Iowa
Assistant Professor of History — 1990
- David L. Morgan** — B.A., Swarthmore College; M.A., Washington University, St. Louis
Assistant Professor of Philosophy — 1965 (1969)
- ***Janice M. Morgan** — B.S., M.Ed., University of Missouri, Columbia; Ph.D., Iowa State University
Associate Professor of Design, Family and Consumer Sciences (Design, Family and Consumer Sciences Education) — 1972 (1975)
- Leslie A. Morgan** — B.M., California State University, Fullerton; M.A., University of Iowa
Assistant Professor of Voice — 1986
- Siobahn M. Morgan** — B.S., University of Minnesota; M.S., Ph.D., University of Washington
Assistant Professor of Astronomy — 1991
- ***Farzad Mousavi** — B.A., Institute of Advanced Accounting, Iran; D.A.S., Leeds Polytechnic, England; M.B.A., Roosevelt University; Ph.D., University of Arkansas
Associate Professor of Management — 1985 (1991)
- ***Robert Muffoletto** — B.S., M.F.A., State University of New York, Buffalo; Ph.D., University of Wisconsin, Madison
Associate Professor of Education: Media — 1990
- ***Raul Munoz** — B.A., M.A., University of Nebraska; M.A., Ph.D., Michigan State University
Professor of Spanish — 1963 (1974)
- Benjamin F. Myers** — B.Ed., University of Toledo; M.S., Eastern Michigan University
Instructor of Teaching: Physical Education — 1982 (1987)
- 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, Korea; Ph.D., Michigan State University
Professor of Mathematics — 1970 (1978)
- ***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)
- Lauren K. Nelson** — B.S., Northern Michigan University; M.A., Central Michigan University; Ph.D., Memphis State University
Assistant Professor of Speech-Language Pathology — 1990
- 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 — 1967 (1974)
- Robert Neymeyer** — B.A., M.A., Ph.D., University of Iowa
Instructor of History — 1991
- Lee H. Nicholas** — B.S., B.A., University of Kansas; M.B.A., University of Tulsa; C.P.A., C.M.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
Professor of Teaching: Elementary Education — 1980 (1992)
Elementary Principal, Malcolm Price Lab School — 1989
- David L. Nixon** — B.S., Northeast Missouri State University
Captain and Assistant Professor of Military Science — 1991
- Virgil C. Noack** — B.A., M.A., University of Northern Iowa
Assistant Professor of Sociology — 1967 (1970)
Head of the Department of Sociology and Anthropology — 1991
- Jeffrey S. Noble** — B.S., Iowa State University; M.S., Western Illinois University
Instructor of Physical Education — 1989
- ***Deborah G. Nuttycombe** — B.A., Virginia Polytechnic Institute; M.E.D., Lynchburg College; Ph.D., University of Virginia
Assistant Professor of Special Education — 1991
- Kathy Oakland** — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Language Arts — 1987
- Maureen O. Oates** — B.A., Emmanuel College; M.A., University of Northern Iowa
Adjunct Instructor of Education: Reading — 1974
- ***Michael David Oates** — A.B., Fairfield University; M.A.T., Assumption University; Ph.D., Georgetown University
Professor of French — 1967 (1970)
- Penny J. O'Connor** — B.A., M.A., University of Northern Iowa
Instructor of Communication Studies — 1988
- ***Timothy E. O'Connor** — B.A., M.A., Creighton University; Ph.D., University of Minnesota
Professor of History — 1982 (1992)
- Earl G. Ockenga** — B.S., Augustana; M.S., University of South Dakota
Associate Professor of Teaching: Mathematics — 1988 (1991)
- Christian W. Ogbondah** — B.A., University of Nigeria; M.A., University of Nebraska; Ph.D., Southern Illinois University
Assistant Professor of English — 1989
- Hollis S. O'Hare** — B.A., Central College; M.A., University of Iowa; C.P.A.
Instructor of Accounting — 1987
- Kevin C. O'Kane** — B.S., Boston College; Ph.D., Pennsylvania State University
Professor of Computer Science — 1992
Head of the Department of Computer Science — 1992
- ***A. Ason Okorwa** — B.B.A., M.B.A., Georgia State University; Ph.D., University of Georgia
Assistant Professor of Finance and Real Estate — 1991
- ***Dale W. Olson** — B.S., Carleton College; Ph.D., University of Rochester
Professor of Physics — 1968 (1992)
- ***Alan R. Orr** — B.A., Simpson College; M.S., Ph.D., Purdue University
Professor of Biology — 1965 (1978)

Faculty

- *Augustine Osman** — B.A., M.A., Ph.D., West Virginia University
Assistant Professor of Psychology — 1986
- Gordon L. Patzer** — B.A., Moorhead State University, Minnesota; M.S.,
Pittsburg State Univ., Kansas; M.B.A., University of Minnesota; Ph.D.,
Virginia Polytechnic Institute & State University
Professor and Head of the Department of Marketing — 1990
- 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 of the Small Business Development Center, External Services
Division — 1983
- *Gerri Perreault** — B.A., University of Minnesota; M.S., Mankato State
University; Ph.D., University of Minnesota
Assistant Professor of Educational Administration and Counseling
Director of Leadership Studies — 1991
- *Barbara E. Pershing** — B.S., Western Illinois University; M.A., University of
Northern Colorado; Ph.D., Iowa State University
Associate Professor of Design, Family and Consumer Sciences (Design,
Family and Consumer Sciences Education) — 1971 (1986)
- Laura Petersen** — B.A., University of Northern Iowa
Instructor of Teaching: Elementary Education — 1990
- Elizabeth J. Peterson** — A.B., M.S.L.S., University of Illinois; M.B.A.,
University of Northern Iowa
Instructor of Management — 1981 (1983)
- Gerald L. Peterson** — A.B., 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)
Coordinator of Physical Education Division
- Neil Phipps** — B.A., University of Northern Iowa
Instructor of Teaching: Physical Education — 1990
- *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)
- Patrick Pizarik** — B.A., M.A., University of Iowa
Instructor of English — 1991
- *Bruce L. Plakke** — B.A., M.A., Western Michigan University; Ph.D., Memphis
State University
Associate Professor of Audiology — 1978 (1991)
- Antonio Planells** — B.A., University of LaPlata, Argentina; M.A., Ph.D.,
Catholic University of America
Professor of Modern Languages — 1992
Head of the Department of Modern Languages — 1992
- *Aaron Mayer Podolefsky** — B.A., California State University, San Jose; M.A.,
M.A., Ph.D., State University of Stony Brook, NY
Professor of Anthropology
Dean of the College of Social and Behavioral Sciences — 1990
- *Kurt W. Pontasch** — B.S., M.S., University of Idaho; Ph.D., Virginia
Polytechnic Institute and State University
Assistant Professor of Biology — 1989
- *Paul J. Porter** — B.A., M.A., Ed.S., University of Northern Iowa; Ed.D.,
Drake University
Assistant Professor of Educational Psychology & Foundations — 1967 (1970)
- *Daniel J. Power** — B.S., M.A., University of Iowa; M.B.A., Ph.D., University
of Wisconsin-Madison
Professor and Head of Management - 1989
- *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)
- Mary Lee Purcell** — B.A., Buena Vista College
Instructor of Teaching: Elementary Education — 1990
- *Charles E. Quirk** — B.A., Carroll College, Wisconsin; B.Div., McCormick
Theological Seminary, Chicago; Ph.D., University of Iowa
Associate Professor of History — 1963 (1969)
- Georgia Quirk** — B.S., University of Illinois; M.A.L.S., University of Iowa
Instructor and Reference Librarian — 1987
- *David J. Rachor** — B.M., B.M.E., Peabody College; M.M., D.M., Indiana
University
Assistant Professor of Bassoon — 1989
- Lora Lee Rackstraw** — B.A., Grinnell College; M.F.A., University of Iowa
Associate Professor of English — 1966 (1975)
- *Ernest G. Raiklin** — B.A., Leningrad-Commercial Economic Institute; M.A.,
Hunter College-CUNY; Ph.D., New School for Social Research, New York
Associate Professor of Economics — 1986 (1991)
- *K. N. Rajendran** — B.S., M.B.M., Banaras Hindu University; Ph.D.,
University of Iowa
Assistant Professor of Marketing — 1988
- *Allen Rappaport** — B.S., M.B.A., University of South Carolina; Ph.D.,
University of Texas, Austin
Professor of Finance — 1982 (1990)
- *Donna B. Raschke** — B.S., Oklahoma State University, Stillwater; M.S.,
Ph.D., University of Wisconsin, Madison
Professor of Special Education — 1979 (1991)
- *Edward C. Rathmell** — B.A., Central College, Pella; Ed.M., Western
Washington University; Ph.D., University of Michigan
Professor of Mathematics — 1972 (1982)
- *Mohammed Y.A. Rawwas** — B.A., Lebanese University, Beirut; M.B.A.,
American University at Beirut; Ph.D., University of Mississippi
Assistant Professor of Marketing — 1991
- *Fred J. Rees** — B.M., State University of New York - Potsdam; D.M.A.,
University of Southern California
Associate Professor of Music Education and Double Bass — 1991
- *Martha J. Reineke** — B.A., Earlham University; M.A., Ph.D., Vanderbilt
University
Director of Women's Studies
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)
- Dennis L. Remmert** — B.A., M.A., University of Northern Iowa
Assistant Professor of Physical Education — 1964 (1969)
- *Basil J. Reppas** — B.A., Athens University, Greece; M.A., American
University of Beirut, Lebanon; Ph.D., University of Iowa
Professor of Educational Psychology & Foundations — 1961 (1976)
- *Jane E. Richards** — B.S., Bradley University; M.S., Ph.D., Southern Illinois
University
Assistant Professor of Health Education — 1982
Coordinator of Health Division — 1991
- *Erwin W. Richter** — B.S., Northern Michigan University; M.A., University of
Northern Iowa; Ph.D., University of Iowa
Professor of Chemistry — 1963 (1990)
- *Paul E. Rider** — B.A., Drake University; M.S., Iowa State University; Ph.D.,
Kansas State University
Professor of Chemistry — 1969 (1979)
- Beverly Riess** — B.A., University of Northern Colorado; M.A., University of
Northern Iowa
Instructor of Teaching
Coordinator of Student Teaching — 1991
- Timothy A. Rippe** — B.S., United States Military Academy; M.A., Naval
Postgraduate School Area Studies
Lieutenant Colonel and Professor of Military Science — 1992
- *Janet McMillan 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., Ph.D.,
University of Minnesota
Professor of English — 1976
- Cheryl Roberts** — B.A., Illinois State University; M.A., Ph.D., University of
Illinois-Champaign Urbana
Assistant Professor of English — 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-Madison
Associate Professor of Religion — 1971 (1980)
- Victoria Robinson** — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Social Studies — 1991
- ***Geisa M. Rocha** — B.A., College of Liberal Arts of Lozrus; M.A., Ph.D., City University of New York
Assistant Professor of Political Science — 1991
- ***Bruce G. Rogers** — B.S., M.A., Arizona State University; Ph.D., Michigan State University
Professor of Educational Psychology & Foundations — 1975 (1988)
- ***Mary Rohrberger** — B.A., Newcomb College; M.A., Ph.D., Tulane University
Professor of English
Head of Department of English Language and Literature — 1990
- Robert F. Rose** — B.A., University of California, Riverside; M.I.M., American Graduate School of International Management; M.L.S., University of Arizona
Associate Professor
Assistant Director for Informational and Instructional Service — 1991
- ***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.M., Indiana University; Ph.D., University of Cincinnati
Professor of Theory — 1975 (1982)
- Roberta M. Roth** — B.S., Iowa State University; M.B.A., University of Minnesota; Ph.D., University of Iowa
Assistant Professor of Management — 1980 (1987)
- ***M. Susan Rueschhoff** — B.S.Ed., University of Nebraska, Omaha; M.B.A., Indiana State University; Ph.D., University of Nebraska, Lincoln
Associate Professor of Management — 1985 (1991)
- ***Robert L. Rule** — B.S., M.S., Ph.D., Iowa State University
Assistant Professor of Mathematics — 1966 (1977)
- Thomas G. Ryan** — B.S.C., M.A., University of Iowa
Associate Professor of History — 1960 (1980)
- ***William J. Ryan** — B.A., University of Illinois-Urbana; B.S.N., M.S.N., St. Louis University; Ph.D., University of Wisconsin-Madison
Assistant Professor of Health Education — 1989
- Barbara Ripp Safford** — B.S., Miami University; M.A., University of Denver; M.L.A., The Johns Hopkins University; D.L.S., Columbia University
Assistant Professor of Library Science — 1991
- Herbert D. Safford** — B.A., University of Vermont; M.A., Yale University; M.S.L.S., D.L.S., Columbia University
Professor and Director of Library Services — 1989
- Sarah Salisbury** — B.A., California State University-Chico; M.A., University of Michigan; M.F.A., University of California-Irvine
Assistant Professor of Theatre — 1989
- ***Roy E. Sandstrom** — A.B., Williams College; M.A., Ph.D., State University of New York, Buffalo
Associate Professor of History — 1969 (1978)
- Paul D. Sannerud** — B.A., Augsburg College; M.F.A., University of Minnesota
Assistant Professor of Communication Studies — 1989
- Sue E. Saveride** — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Language Arts — 1989
- ***Donald W. Schmits** — B.A., University of Evansville; M.S., Southern Illinois University; Ed.D., Rutgers University
Associate Professor of Educational Psychology & Foundations — 1976
- ***JoAnn Schnabel** — B.F.A., Alfred University; M.F.A., Louisiana State University
Associate Professor of Art — 1990
- Mary Kathleen Schneider** — B.A., M.A., University of Northern Iowa
Instructor of Teaching: Elementary Education — 1990
- ***Augusta Schurrer** — B.A., Hunter College; M.A., Ph.D., University of Wisconsin, Madison
Professor of Mathematics — 1950 (1963)
- ***Orlando A. Schwartz** — B.A., M.A., California State University, Long Beach; Ph.D., University of Kansas
Associate Professor of Biology — 1980 (1986)
- ***Lyle E. Schwarzenbach** — B.A., M.A., University of Northern Iowa; Ed.D., University of Wyoming
Assistant Professor of Physical Education — 1969 (1976)
- ***Ralph S. Scott** — B.A., Luther College; M.S.W., University of Wisconsin; Ph.D., University of Chicago
Professor of Educational Psychology and Foundations — 1965 (1968)
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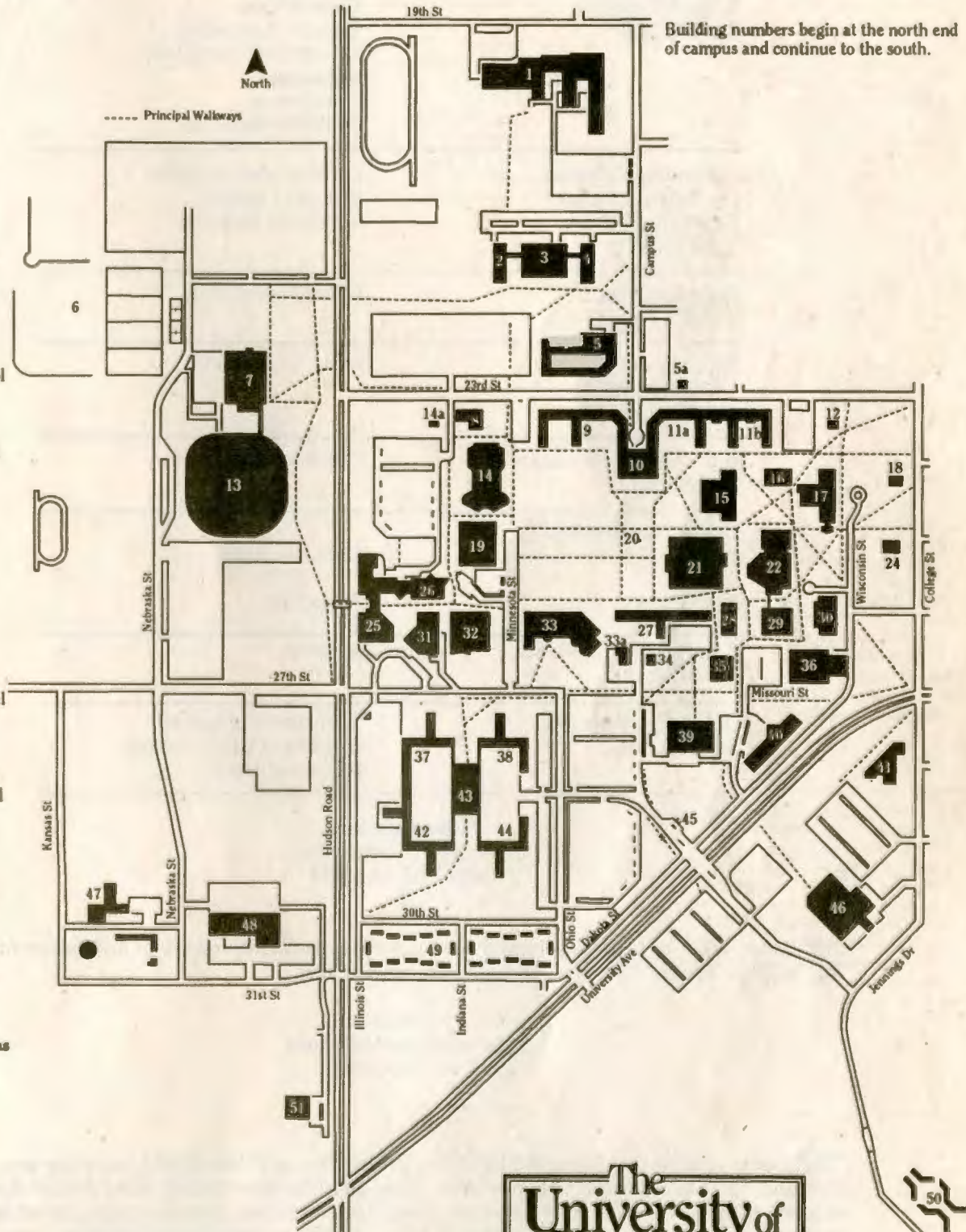
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- 6 Athletic Fields
- 17 Auditorium Building
- 27 Baker Hall
- 41 Biology Research Complex
- 33 Business Building
- 5a Center for Social & Behavioral Research
- 26 Communication Arts Center
- 15 East Gymnasium and Pool
- 14 Schindler Education Center
- 46 Industrial Technology Center
- 40 Latham Hall
- 7 Physical Education Center
- 16 Physics Building
- 1 Price Laboratory School
- 34 Psychology No. 1
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Administration and Institutional Areas

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- 38 Rider Hall
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Department of Residence 319-273-2333	Housing
University Information 319-273-2311	Telephone numbers of department offices, faculty staff and students.

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