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## University of Northern Iowa



2000-2002

## University of Northern lowa



# 2000-2002 <br> Programs and Courses 

Effective Fall Semester - 2000

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## Summer Session, 2000--



## Fall Semester, 2000--

Aug. 18 . . . . . . . . . . . . . . . . . . Pri, Registration, 9:00 a.m. $--4: 00$ p.m.
Aug, 21 .......................... . . Mon., Instruction begins, 8:00 a.m.
Sept. 4 . . . . . . . . . . . . . . . . . . . . . . . . Mon., Legal holiday (Labor Day)
Oct. 13 ....................... . .Fri., End first half semester, 10:00 p.m.
Oct. 16 . . . . . . . . . . . . . . . . Mon., Begin second half semester, 8:00 a.m.
Nov. 21 ............Tues., Thanksgiving vacation begins, 10:00 p.m.
Nov. 27 ......................... . Mon., Instruction resumes, 8:00 a.m.
Dec. 11-15 ............................ Mon.-Fri., Final examinations
Dec. 15 ............................... . . .Fri., Semester ends, 10:00 p.m.
Dec. 16
.Sat., Commencement

## Spring Semester, 2001--



## Summer Session, 2001 --

June 8 ...........................Fri, Registration, 8:00 a.m.--4:00 p.m. July 4 . ................................................. Wed., Legal holiday Aug. 3 . . . . . . . . . . . . . . . . . . . . Pri, Summer sessions end, 10:00 p.m.

## (May session - 4 weeks)

May 7
.Mon., Instruction begins, 7:30 a.m.
June 1 ................................Fri., May session ends, 10:00 p.m.
(May/mid-June session -- 6 weeks)
May 7
.Mon., Instruction begins, 7:30 a.m.
June 15 ..................Fri., May/mid-June session ends, 10:00 p.m.
(June session - 4 weeks)
June 11 ............................. Mon., Instruction begins, 7:30 a.m.
July 6
. .Fri, End June session, 10:00 p.m.

## (June/July session - 8 weeks)

June 11 .................................. Mon., Instruction begins, 7:30 a.m
Aug. 3 . ....................... . Fri, End June/July session, 10:00 p.m.
(mid-June/July session - 6 weeks)
June 18 ........................... Mon., Instruction begins, 7:30 a.m.
July 27 . . . . . . . . . . . . . . . Fri., End mid-June/July session, 10:00 p.m.
(July session -- 4-weeks)
July 9............................ . . Mon. Instruction begins, 7:30 a.m.
Aug. 3 . . . . . . . . . . . . . . . . . . . . . . . . . .Fri, July session ends, 10:00 p.m.

## Fall Semester, 2001--

Aug. 24 . . . . . . . . . . . . . . . . . . . . . . Fri., Registration, 9 a.m.--4:00 p.m.
Aug. 27 . . . . . . . . . . . . . . . . . . . . . . Mon., Instruction begins, 8:00 a.m.
Sept. 3 . . . . . . . . . . . . . . . . . . . . . . . Mon., Legal holiday (Labor Day)
Oct. 19 ....................... . . Fri., End first half semester, 10:00 p.m.
Oct. 22 . . . . . . . . . . . . . . . . Mon., Begin second half semester, 8:00 a.m.
Nov. 20 ............Tues., Thanksgiving vacation begins, 10:00 p.m.
Nov. 26 ........................ Mon. Instruction resumes, 8:00 a.m.
Dec. 17-21 .............................. Mon.-Fri., Final examinations
Dec. 21 ................................. . .Fri., Semester ends, 10:00 p.m.
Dec. 22
.Sat, Commencement

## Spring Semester, 2002--

Jan. 11 . . . . . . . . . . . . . . . . . . . .Pri., Registration, 9:00 a.m.--4:00 p.m.
Jan. 14 .............................. Mon., Instruction begins, 8:00 a.m.
Jan. 21 . . .Mon., University holiday (Martin Luther King's Birthday)
Mar. 1 . . . . . . . . . . . . . . . . . . . Fri., End first half semester, 10:00 p.m.
Mar. 4 . . . . . . . . . . . . . . . Mon., Begin second half semester, 8:00 a.m.
Mar. 15 ..................... . . .Fri., Spring vacation begins, 10:00 p.m.
Mar. 25 ......................... . Mon., Instruction resumes, 8:00 a.m.
May 6-10................................. Mon.-Fri, Final examinations
May 10 ............................... . . Fri, Semester ends, 10:00 p.m.
May 11 ........................................... Sat., Commencement

## Summer Semester, 2002--

June 7 ........................ .Fri., Registration, 8:00 a.m.--4:00 p.m.
July 4
Thur., Legal holiday
Aug. 2 . . . . . . . . . . . . . . . . . . . Fri., Summer session ends, 10:00 p.m.
(May session - 4 weeks)
May 13 . . . . . . . . . . . . . . . . . . . . Mon. Instruction begins, 7:30 a.m.
June 7 .................................... Pri., May session ends, 10:00 p.m.
(May/mid-June session - 6 weeks)
May 13 ............................ Mon., Instruction begins, 7:30 a.m.
June 21 . ..................Fri, May/mid-June session ends 10:00 p.m.
(June session - 4 weeks)
June $10 \ldots . . . . . . . . . . . . . .$. ............... Instruction begins, 7:30 a.m.
July 5 . . . . . . . . . . . . . . . . . . . . . . . .Fri., End June session, 10:00 p.m.
(June/July session - 8 weeks)
June 10
.Mon., Instruction begins, 7:30 a.m.
Aug. 2 . ................................. . .Fri, End 8-weeks, 10:00 p.m.
(mid-June/July session - 6 weeks)
June 24 .............................. Mon., Instruction begins, 7:30 a.m.
Aug. 2 . ....................Fri., End mid-June/July session, 10:00 p.m.
(July session - 4 weeks)
July 8 . . . . . . . . . . . . . . . . . . . . . . Mon. Instruction begins, 7:30 a.m.
Aug. 2 . . . . . . . . . . . . . . . . . . . . . . . . Fri., July session ends, 10:00 p.m.

## 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. Further information can be obtained on the University's World Wide Web site http://wwww uni.edu.

## The University and Its Programs <br> 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. Four conventional baccalaureate degrees are offered: the Bachelor of Arts, the Bachelor of Fine Arts, the Bachelor of Music, and the Bachelor of Science.

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, twelve degrees are offered: the Master of Accounting, the Master of Arts, the Master of Arts in Education, the Master of Business Administration, the Master of Music, the Master of Public Policy, the Master of Science, the Master of Social Work, 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 Board of Regents, State of Iowa.

## 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 Board of Regents, State of Iowa. Its current statement of mission was approved by the Board of Regents, State of Iowa in 1997:
"The University of Northern Iowa is Iowa's only public university that is distinguished by its emphasis on undergraduate education. The University contributes to the development of students by providing a diverse, dynamic leaming environment characterized by excellence in teaching. The University supports exemplary undergraduate programs founded on a strong liberal arts curriculum and offers master's and selected doctoral programs that contribute to the intellectual vitality of the academic community. The University increases knowledge and promotes student growth through scholarship and service, and shares its expertise with individuals, communities, and organizations."

## 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 International Association for Management Education, the Council for Accreditation of Counseling and Related Educational Programs, the National Association of Schools of Music, the National Association of Schools of Art and Design, the Council on Social Work Education, the American Speech-LanguageHearing Association, the American Association of Family and Consumer Sciences, the American Dietetic Association, the National Association of Industrial Technology, the American Council for Construction Education, 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.

The Council for Accreditation of Counseling and Related Educational Programs (CACREP), a specialized accrediting body recognized by the Councll on Postsecondary Accreditation (COPA), has conferred accreditation to the following program areas in the Department of Educational Leadership, Counseling, and Postsecondary Education at the University of Northern Iowa: Mental Health Counseling (M.A.), and School Counseling (M.A.E.).

## Academic Structure

## College of Business Administration

## http://www.cba.uni.edu

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. To accomplish this, the mission of the College of Business Administration is:

## Mission

The University of Northern Iowa's College of Business Administration will distinguish itself through excellence in its undergraduate education and selected graduate programs. Our primary focus is to provide a professional education that enables our graduates to be productive citizens in a complex society. In addition, we engage in professional training and economic development activity throughout the State of Iowa.

Our College is characterized by a learning-centered environment, considerable student-teacher interaction, a varied and relevant curriculum, state-of-the-art facilities, experiential learning, and high academic standards. This environment is achieved through a faculty and staff committed to student development, scholarly activity, and sharing of expertise through service to others.

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 fulltime 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.

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 graduate programs leading to the Master of Business Administration (M.B.A.) degree and the Master of Accounting (MAcc) degree. Finally, the College of Business Administration serves numerous other disciplines in the University through its offering of selected professional courses. All programs are accredited by the AACSB.

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 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.

To graduate with a major in Accounting, Business Teaching, Finance, Economics: Business Analysis, Management, Management Information Systems, or Marketing from the College of Business Administration, a student must earn at least $50 \%$ of the business credit hours required for the major from UNI.

## College of Education

## http://www.uni.edu/coe

The College of Education includes six instructional units. 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.).

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, school library media studies, educational technology, and education of the gifted. Graduate degree programs leading to a Master's degree are offered, as well as an Ed.D. intensive study area in curriculum and instruction. For further information please visit our Web site at http://www.umi.edu/coe/ci.

Educational Leadership, Counseling, and Postsecondary Education: Graduate programs at the master's and Ed.D. levels in educational leadership, counseling, and postsecondary education.

Educational Psychology and Foundations: Educational psychology, human development, research and evaluation, school psychology, and social foundations of education. The department is responsible for courses required of all prospective teachers. The department has three graduate degree programs at the Master's level and one graduate degree specialist program. For further information please visit our Web site at http//www.uniedw/coe/epf.

School of Health, Physical Education, and Leisure Services: Graduate and undergraduate majors in health promotion and school health education, physical educati申n, leisure services, and youth/human service administration. The School also offers the general education Personal Wellness course in addition to minors and/or program certificates in coaching, dance, global health, health education, health promo-
tion, leisure services, outdoor recreation, physical education (elementary teaching), tourism, and youth services administration. The School operates several unique demonstration and outreach services including: Camp Adventure ${ }^{T M}$ Youth Services, Global Health Corps, Institute for Youth Leaders, National Program for Playground Safety, and the Program for Community Recreation and Tourism Research/Service. Performance groups include the International Dance Theatre (IDT), Orchesis Dance Company and The Young Peoples Dance Theater (YPDT). Specialized laboratories include: Athletic Training Laboratory, Exercise Physiology Laboratory, Biomechanics Laboratory, Psycho-Motor Behavior Laboratory, Biostatistics Laboratory, Wellness Resource Laboratory, and a Teaching Laboratory. Information on the School may be found on the World Wide Web at the following address: http://www uni.edu/coe/hpels.

Special Education: Graduate and undergraduate majors and minors in mild, moderate, and severe disabilities. Graduate programs emphasize Field Specialization, Special Education Consultant, and Career/Vocational Programming and Transition. All programs emphasize field-based experiences and applied research.

Teaching: The Department of Teaching is responsible for the administration of its two divisions -- 1) Price Laboratory School; 2) Office of Student Field Experiences. 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 inservice 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 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. 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 in diverse settings.

The College is involved in continuing education, working closely with school and non-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.

Department faculty within the College of Education are engaged in writing and research activities along with their classroom instruction. The 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.

## College of Humanities and Fine Arts

## http://www.uni.edu/chfa

The College of Humanities and Fine Arts includes seven academic departments: Art, Communication Studies, Communicative Disorders, English Language and Literature, Modern Languages, Philosophy and Religiom, and Theatre; the School of Music; the two public radio stations, KUNI and KHKE, housed within Broadcasting Services; and the Gallagher-Bluedorn Performing Arts Center.

The College of Humanities and Fine Arts offers graduate and undergraduate degree programs. Students enrolled in majors in the College can graduate with the Bachelor of Arts (B.A.) degree in specialized content areas in each major department in the college. The Bachelor of Fine Arts (B.F.A.) and Bachelor of Music (B.M.) are also offered in Art and Music respectively. In addition, the College serves students across the campus with an extensive set of general education, elective, and service courses.

College departments provide diverse major and minor programs at the undergraduate and graduate levels in these areas: Art, Communication, Speech Communication, Journalism, Journalism Education, Electronic Media, Public Relations, Communicative Disorders, Speech-Language Pathology and Audiology (graduate level), English, Teaching English to Speakers of Other Languages (TESOL), French, German, Spanish, Portuguese, Russian, Music, Philosophy, Religion, Ethics, Theatre, Leadership Studies, and an undergraduate minor and Master of Arts (M.A.) in Women's Studies.

Several departments in the College offer cooperative programs. For instance, the Departments of English Language and Literature and Modern Languages combine in various ways Comparative Literature, English, Modern Languages, and TESOL. The School of Music has majors in Music Education and Performance, Music History, and Conducting which lead to the Master of Music (M.M.). Graduate and certificate programs of the College include a major in foreign language translation at the master's degree level as well as certificate programs in bilingualism, translation, interpretation, and international business. The Department of Philosophy and Religion has a program that joins departmental majors with the Master of Business Administration (M.B.A.).

The College of Humanities and Fine Arts also offers interdisciplinary undergraduate programs in Humanities and shares responsibility for the American Studies, Inter-American Studies, European Studies, and Russian Area Studies majors.

Additionally, the College of Humanities and Fine Arts sponsors a very wide variety of programs abroad (Eastern and Western Europe, Central and South America) and 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 are in addition to the recitals and ensemble performances of individuals, ensembles, and symphonies in the School of Music, the productions staged by Theatre UNI and UNI Lyric Theatre, and the art exhibitions organized by the UNI Gallery of Art.


Administratively housed in the College of Humanities and Fine Arts are UNI's two separately programmed public radio stations. KUNI-FM serves the Cedar Palls/Waterloo, Cedar Rapids, and Iowa City areas at 90.9 on the dial. KUNI can also be heard at 98.7 in Dubuque, 94.5 in the Quad Cities, 96.1 in Des Moines, and 91.5 in north central Iowa via KUNY-FM in Mason City. KUNI/KUNY broadcast quality music and public affairs features each day. KHKE-PM, at 89.5 on the dial, serves the Cedar Falls/Waterloo metro area with a jazz and classical music format. KHKE is also heard at 90.7 in Mason City, and at 1010 AM in northern Iowa and southern Minnesota, via KRNIAM in Mason City. Students majoring in Electronic Media in the Department of Communication Studies serve as interns for the two stations.

The College of Humanities and Fine Arts prepares its graduates for lifelong learning and for a productive life in a rapidly changing society and economic environment. 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. Most UNI students take major components of the University's General Education Program in the College of Humanities and Fine Arts -- for instance, courses in the humanities, in literature or writing, in philosophy and religion, in the appreciation of art, music, and theatre, in foreign languages and cultures, or in electives. For both personal and professional reasons, we believe human achievements in the liberal and fine arts are relevant and valuable studies for all the students of the University.

## College of Natural Sciences

## http://www.ens.uni.edu

The College of Natural Sciences houses seven instructional departments: Biology, Chemistry, Computer Science, Earth Science, Industrial Technology, Mathematics, and Physics.

The mission of the College of Natural Sciences is to provide a quality education which will prepare students to live and work in an increasingly scientific and technological world. In support of this mission, the

College is committed to its emphasis on quality teaching in undergraduate liberal and technical education; well-focused graduate programs, research and technology transfer, and distinguished service to our community, state, profession, and society. The College offers exemplary programs of preservice and inservice teacher preparation in the sciences, mathematics, computer science, and industrial technology. In fulfilling this mission, the College remains committed to its historical emphasis on instructional excellence at the undergraduate and graduate levels. Such excellence is achieved by maintaining a stimulating educational environment that encourages close faculty-student interactions, scholarly research and professional service.

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

Qualified students may pursue a dual degree program leading to a B.S. Applied Physics from the University of Northern Iowa and a B.S. Engineering degree from the University of lowa or lowa State University. Students who intend to study engineering may complete the two-year Pre-Engineering program at UNI before transferring to an engineering school. For details of this option, please refer to the Physics section of this catalog.

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. A chairperson coordinates courses and programs and signs approvals.

At the graduate level, the College offers Master of Arts degree programs in biology, chemistry, industrial technology, mathematics, and science education. A major in science education may be selected for the Specialist degree. The College also offers Master of Science degree programs in biology, chemistry, computer science, environmental science and environmental technology. The major in biology is tailored to fit student interests and aspirations in biology and is designed for students seeking an extensive research experience; the major in chemistry is designed for students seeking an extensive research experience in a friendly environment featuring regular interaction with their faculty mentors - graduates of the program are well prepared for technical positions in industrial or government laboratories or for continued study in doctoral programs in chemistry; the major in computer science is designed to foster preparation for applied professional careers in computing sciences; the interdisciplinary programs in environmental science and environmental technology are designed for students with a discipline-based bachelor's degree in one of the natural sciences, technology, or engineering and prepares students for positions with environmental consulting firms, government agencies, environmental departments within large companies, and companies specializing in environmental technologies. The M.S. degrees in chemistry, environmental science, and environmental technology are also offered in a B.A./M.S. format, in which students begin work on the master's degree while still completing the undergraduate degree. The degree of Doctor of Industrial Technology is offered by the College and is designed to develop scholars in the fields of industry and education. Program focus is on the technological systems used in industry and the potential and limitations of possible future developments in technological systems and their utilization in industry.

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

The College of Natural Sciences is involved in a number of interdepartmental and intercollegiate projects. An annual Science, 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.

## College of Social and Behavioral Sciences

## http://www.uni.edu/csbs

The College of Social and Behavioral Sciences houses seven instructional departments: Design, Family and Consumer Sciences; Geography; History; Political Science; Psychology; Social Work; and Sociology, Anthropology, and Criminology. All departments share a concern for understanding individuals, families, groups, 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 col-lege-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 a major or minor in American Studies, Asian Studies, European Studies, Inter-American Studies, Russian Studies, and Women's 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 Design, Family and Consumer Sciences and Social Work have programs which lead to a Bachelor of Arts--Teaching degree, the requisite degree for licensure 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 offered in geography, history, political science, psychology, sociology, and women's studies. The Master of Public Policy (MPP) and the Master of Social Work (MSW) are also offered.

The primary emphasis of the University and the College of Social and Behavioral Sciences is instruction. The College provides high-quality, diverse educational experiences. In addition to regular classroom activities, students receive individualized instruction through field experiences, internship opportunities, individual study projects, and experiential learning. Many opportunities for both undergraduate and graduate student research exist. Several disciplines incorporate both field research and laboratory experiences in their offerings. The College offers and participates in many off-campus programs. The College has several computer-based laboratories and multimedia-equipped classrooms to enhance its educational mission.

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 Career Center.

The College of Social and Behavioral Sciences offers an Honors option to students majoring in one of the academic programs within the College. For further information regarding this CSBS Honors Program, see page 57.

For additional information about the College of Social and Behavioral Sciences, contact the Dean's office (319-273-2221) or any of the departmental offices. Information can also be obtained on the World Wide Web at $h$ trp: $/ / \mathrm{www}$.uni.edw/csbs.

## Division of Continuing Education and Special Programs

## http://www.uni.edu/contined

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 credit courses, 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 50614-0223 or call 319-273-2121 or 1-800-772-1746.

## Credit Programs

Correspondence Courses-For those who find it inconvenient to attend classes on campus, opportunities to learn and earn university credit are available through the Guided Correspondence Study program. Over seventy courses are available via this method of delivery. Most are print-based, some are on-line/world-wide-web based, and some are available via both mediums. Correspondence courses do not follow the regular semester schedule; students can enroll at any time, work at their own pace and have up to twelve months to complete the course. A booklet including the list of the courses and all of the program details is available by contacting the Continuing Education Credit Office at 124 Student Health Center, 319-273-2122 or 800-772-1746, or view the information at $h \mathrm{htp} / / / \mathrm{www}$. uni.edwcontined/ $\mathrm{pp} /$ distance. $h \mathrm{hmL}$

Off-Campus Courses and Degree Programs--Each semester UNI offers a wide variety of courses, workshops, and degree and certification programs in different communities throughout Iowa using onsite delivery, the Iowa Communication Network (ICN) and semesterbased online/www courses. Also, telecourses, which feature television broadcasts on Iowa Public Television as well as contact with a UNI instructor, are offered. A majority of the courses and programs are for graduate students working in $\mathrm{K}-12$ settings who are seeking advanced degrees, an additional endorsement/certification, or recertification hours. Courses and programs are also offered to business and industry employees who have specific educational needs. Those interested in off-campus courses and programs should contact the Continuing Education Credit Office at the address listed above.

## Non-Credit Programs

Educational Event Management and Contract Training The Office of Non-Credit Programs, as part of the University's program of continuing education, provides assistance in planning, budgeting, managing and evaluating conferences, seminars and institutes to enable various colleges, departments, and disciplines to initiate and/or continue non-credit offerings and to meet continuing education needs. It also provides management of contract training to meet the needs of Iowa's industrial and business organizations.

As a unit of UNI's Division of Continuing Education and Special Programs, the mission of the Office of Non-Credit Programs is to extend the resources and expertise of the University and its staff to the state-wide constituencies by providing educational programming via conferences, seminars, institutes, and contract training initiatives.

The Office of Non-Credit Programs is the recognized University of Northern Iowa provider of Continuing Education Units (CEU's). CEU's are the national unit for the recording of non-credit education.

Address: Non-Credit Programs
Continuing Education and Special Programs University of Northern lowa 1221 W. 23rd Street, H-15
Cedar Falls, IA 50614-0225
Phone: 319-273-7882
Toll Free: 800-782-9519
Fax: 319-273-7338
Web: http://www.uni.edu/contined/ncp
In addition, the Office of Conferences and Visitor Services is the contact for all outside groups wishing to utilize 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 following 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 Individual Studies major (see page 95) General Studies major (see page 95) General Studies for Registered Nurses (see pages 41-42)
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 UN1 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 154 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, 1012 West 23 rd St., Cedar Falls, IA 50614-0285. 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 (000:192, 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 (000:196). 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 her/his work.

Undergraduate Thesis (000:197). 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 Study Project (000:198). 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.

## Office of International Programs

## http://www.uni.edu/international_programs

The Office of International Programs at the University of Northern Iowa provides service and leadership in international education to UNI students, faculty and staff who wish to research or study abroad; offers services and support to international scholars and students who are guests on our campus; and serves as a resource on international education to the University, the community and the state. These services are administered by this office through International Student and Scholar Exchange, Study Abroad, and Culture and Intensive English Program.

International Student and Scholar Exchange. UNI presently has exchange agreements with over 20 universities located in Europe, Asia, and South America.

Incoming Exchange Students. A designated number of students from our exchange universities study at UNI for a semester or a year. Students may also enroll in degree-granting programs.

## General Information

International Scholar Exchange. In conjunction with the formal exchange agreements, the Office of International Programs acts as host to exchange scholars from these partner universities. International scholars teach and conduct research on the UNI campus for a semester or a year. In addition, UNI faculty have the opportunity to teach and conduct research worldwide on the campuses of these universities.

These student and scholar exchanges contribute to the cultural diversity of the UNI campus, to strengthen international collaborative teaching and research efforts, and increase an exchange of information across all disciplines on a global level.

For further information on any of these programs, contact the Office of International Programs, 59 Baker Hall, University of Northern Iowa, Cedar Falls, IA 50614-0520 or call (319)273-6807.

Study Abroad. Students may earn UNI credits while studying abroad, and most programs can be designed to accommodate any academic course of study. The Study Abroad Center assists students with the transfer of credits from the foreign university to UNI, with passport and visa questions, and with any other concerns that may arise during the application process. Competitive scholarships are available; and, financial aid may also apply toward expenses for exchange programs.

Application materials, acceptance criteria, cost, program dates and deadlines vary by program and are available from the Study Abroad Center.

UNI Student Exchange Program. UNI undergraduate and graduate students may arrange to spend a semester or a year studying abroad at one of our official exchange universities. Each university provides a unique program. Some of these universities offer instruction in English; some instruct in the local language. Some universities provide a full curricular offering; others are more limited in the courses students may take.
lowa Regents Program. UNI is in partnership with the Iowa Regents Institutions to offer study abroad opportunities at four universities in Europe and one university in Australia. Similar to the exchange universities, some programs are based in language study, while others offer a broad selection of instruction.

For further information on any of these programs, contact the Study Abroad Center, 59 Baker Hall, University of Northern Iowa, Cedar Falls, IA 50614-0520 or call (319)273-7652.

Culture and Intensive English Program. The Culture and Intensive English Program (CIEP) provides a course of instruction for non-native speakers of English that emphasizes a practical command of spoken and written English in preparation for academic studies. CIEP offers eight-week sessions beginning in August, October, January, March and June. Each session is preceded by an orientation session for new students. For exact dates of upcoming sessions, please contact the CIEP office.

Each session provides 20 classroom hours per week of English language study and cultural orientation. Students are taught by experienced instructors in small classes. The unique needs of each student are addressed through careful testing and placement according to ability.

Courses offered within the program include: Listening Comprehension, Speaking/Pronunciation, Reading Comprehension/Vocabulary Expansion, Writing/Grammar and TOEFL Preparation (optional). This progressive approach to language study allows students to develop and retain skills more quickly. Students successfully completing the program are awarded a Certification of Completion.

For further information on any of these programs, contact the Culture and Intensive English Program, 72 Baker Hall, University of Northern Iowa, Cedar Falls, IA 50614-0511 or call (319)273-2182.


## Other International Opportunities

The International Student Teaching program is administered by the Office of Student Field Experiences, Department of Teaching, in the College of Education. Students enrolled in teaching majors may apply to complete their 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 an international placement at the time of general application for student teaching. In some situations a four-week student teaching assignment in Iowa is necessary to fulfill state licensure standards. Financial aid is available to qualified students. Call the Office of Student Field Experiences (319-273-2806) for further information.

The German Summer Institute in Austria is an undergraduate and graduate program with one five-week session 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 countries 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 live with Austrian families. For information, contact Fritz Konig, Department of Modern Languages, UNI, Cedar Falls, IA 50614-0504, or visit our World Wide Web homepage at http://www. uniedu/modlangs/institutes-abroad.

The University of Northern lowa 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 alternate semesters. 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 five-week program held in Angers, France. The institute program provides for six 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. Participants will live with French families. For information, contact Michael D. Oates, Department of Modern Languages, UNI, Cedar Falls, IA 50614-0504, or visit our World Wide Web homepage at
http://www. uni.edu/modlangs/institutes-abroad.
The UNI System of Summer Institutes for Spanish Teachers (UNISSIST), though primarily designed for teachers of Spanish, also encourages non-teaching graduate students to participate. This program offers the Master of Arts in Spanish with a choice of emphases in Teaching or in Language and Literature. Each summer the following institutes are available:

1. UNISSIST in Spain. Held in Santiago de Compostela, there are two three-week sessions with a three- or four-day excursion between the two sessions. Participants will live with Spanish families and take formal classes. Areas of historical and cultural interest in northwest Spain will be visited. This institute offers up to nine hours of credit for the full seven-week period and up to five for a four-week session (three-week session, plus the excursion week). This institute will be held each summer from the last week in June through the second week in August.
2. UNISSIST in Cedar Falls. This institute is held in June and/or July. The number of credit hours and topics vary from summer to summer. Students and staff eat lunch together at a "Spanish table" in the Union.
3. UNISSIST in Mexico. Held in Colima, 250 km . south of Guadalajara. There are two three-week sessions, with a three-or four-day excursion between the sessions. Participants will live with local Mexican families and take formal classes. Areas of historical and cultural interest will be visited. This institute offers up to nine hours of credit for the full seven-week period and up to five for the four-week session (one three-week session, plus the excursion). This institute will be held each summer from the last week in June through the second week in August.
For further information, visit our World Wide Web homepage at http://www.uni.edu/modlangs/institutes-abroad.

The Regents' Program in France is a seven-week program sponsored jointly by the three lowa Regents' Universities. Students will spend seven 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, includes weekly excursions in the Lyon area and offers up to nine semester hours of credit. For further information, visit our World Wide Web homepage at
http://www. uni.edu/modlangs/institutes-abroad.
The lowa Hispanic Institute is a six to eight-week program sponsored jointly by the University of Iowa and the University of Northern Iowa 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. For further information, visit our World Wide Web homepage at
http://www. uni.edu/modlangs/institutes-abroad.
The Department of Social Work Program in the United Kingdom is conducted by the University of Northern Iowa Department of Social Work. This program provides student exchanges with the University of Hull in England. There are several options for students. Two- to four-week study tours are conducted jointly by professors from the University of Northern Iowa and the University of Hull. Students will attend courses and visit social service agencies in Hull and Yorkshire, for up to three semester hours of credit. There is a
one semester exchange in which students may attend courses in the Department of Professional Studies at the University of Hull for up to twelve semester hours of credit. In the early autumn, there is a oneweek conference on social work that rotates among the Universities of Hull, Frankfurt, Vienna, and Marseilles.

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 Semester Spanish Program in Mexico is available through an agreement with the Colima Campus of the Instituto Tecnologico y de Estudios Superiores de Monterrey (ITESM). It is primarily designed for undergraduates, but graduate credit may be arranged. Students may choose between the Fall term (SeptemberDecember), or the Spring term (January-May). Participants are housed with local families. Up to 18 credits may be earned. Two of the courses taken are by correspondence with UNI faculty, and four are taught by the faculty at ITESM. For further information, visit our World Wide Web homepage at http://www.uni.edu/modlangs/institutes-abroad.

The UNI Semester in Spain (UNISIS) is held in cooperation with the Universidad de Oviedo (UO) in Asturias in northern Spain. During the fall semester the program is shorter and more intensive. It is a twelve-week program, from the first week in October through the third week in December, and offers between 12 and 15 credits. During the spring semester, the program runs for $18-19$ weeks, from mid-January through the month of May, and offers between 12 and 18 credits. UNISIS is designed especially for students who have had a minimum of two years of university-level Spanish, or the equivalent. Upon arrival at UO, participants are tested for their skills in Spanish and placed in one of two levels. For housing and meals, the university places students with local families, and there is only one student per family. During this semester, Easter Week (Semana Santa) provides participants with a nine- or ten-day break, when they may choose to travel to other parts of Spain or Europe. For further information, visit our World Wide Web homepage at http://www.uni.edu/modlangs/institutes-abroad.

## Other Educational Opportunities

Army Reserve Officers' Training Corps (ROTC) Program: Army ROTC offers scholarship opportunities during college, but the . real benefits begin when you graduate and are commissioned as a Second Lieutenant. ROTC opens up opportunities for positions of responsibility while teaching you valuable leadership and management skills impressive to the top employers in business and industry. ROTC also helps you grow individually, improve self-confidence, discover your capabilities, and perform to your full potential.

Iowa Lakeside Laboratory: Iowa Lakeside Laboratory is a field station run cooperatively by the University of Northern lowa, the University of Iowa, and Iowa State University through the Board of Regents, State of Iowa.

The Laboratory was established in 1909 for the conservation and study of the rich flora and fauna of northwest Iowa, especially those of the Iowa Great Lakes region with its numerous lakes, wetlands, and prairies. Its campus is located on approximately 140 acres of restored prairie, wetland, and gallery forest along the west shore of West Okoboji Lake. Lakeside's mission is to provide undergraduate and graduate students an opportunity to get hands-on experience working with a variety of natural and human environments through its field-oriented summer courses and to provide research facilities and support for graduate students and faculty working on research projects in northwestern Iowa.

## General Information

Each summer, Iowa Lakeside Laboratory offers students a unique educational experience: small, full immersion, field-oriented courses in the natural sciences (archaeology, ecology, environmental science, evolution, geology, taxonomy). All courses meet all day from Monday through Friday. The majority of courses run for either 3 or 4 weeks. Enrollments in most courses are limited to 8 to 10 students. Courses are taught at the undergraduate (sophomore and junior) and the senior/graduate level. Students obtain one credit for each week (40 hours) in class. One- and two-week courses are also available, including courses designed especially for teachers. Weather permitting, students normally spend at least part of each day doing field work, either as part of their class work or working on individual or group projects. Because there are courses offered only alternate summers, the current lowa Lakeside Laboratory Bulletin or the University of Northern Iowa Summer Session Schedule of Classes should be consulted for the list of courses being offered in a given summer session. The Iowa Lakeside Bulletin also contains additional information about the Laboratory and about each course being offered.

Research projects by undergraduates, graduate students and faculty can be done either on the campus or at many nearby natural areas. Undergraduate and graduate students are strongly encouraged to do independent projects at Lakeside, and graduate students are welcome to use it as a base for their thesis and dissertation research. Laboratory space and other facilities are available for long-term or short-term research projects.

Teaching and research facilities include eight laboratory buildings, a library, and a lecture hall. Living accommodations include cottages, motel-style units, and a large mess hall. All students are encouraged to stay at Lakeside while they are taking courses to take full advantage of its educational, professional, and social life.

Financial Aid: Iowa Lakeside Laboratory Scholarships are available to both undergraduates and graduate students. All scholarships cover room and board. Information about how to apply for lowa Lakeside Laboratory Scholarships is included in the Iowa Lakeside Bulletin. Students should also consult the Student Financial Aid Office for other scholarships, work study, and loan programs for which they are eligible.

Registration: Students can only enroll in Iowa Lakeside courses by submitting an Iowa Lakeside Registration and Scholarship Form and Housing Form to the Iowa Lakeside Laboratory Administrative Office. These forms are found in the Iowa Lakeside Laboratory Bulletin, which also contains information on current course offerings, and in the University of Northern Iowa Summer Session Schedule of Classes. The Iowa Lakeside Laboratory Bulletin can be obtained from:

Iowa Lakeside Laboratory
131 Bessey Hall
Iowa State University
Ames, IA 50011-1020
Phone: 515-294-2488
Fax: 515-294-9777
E-Mail: lakeside@iastate.edu
The entire lowa Lakeside Laboratory Bulletin is also on the World Wide Web. The URL is http://www.lakeside.iastate.edu.

Early registration is advisable. Because enrollment in Lakeside courses is limited, students should register before May 1 for the following summer session. Housing is very limited and students must apply for housing or indicate that they plan to live off campus at the time of registration.

The Iowa Space Grant Consortium is an organization sponsored by the National Aeronautics and Space Administration (NASA) and comprised of UNI, the other Iowa Regents' institutions, and Drake University. The Consortium is committed to establishing a national
network of universities interested in space-related fields; encouraging cooperation among industry, governments, and universities in technical career programs; organizing educational programs, cooperative training, and research involving scientists from different areas; and recruiting and training professionals, especially women and minorities, for careers in aerospace technology and related fields, promoting a strong math and science education base from kindergarten through college. Through a program of scholarships and fellowships, the Consortium provides undergraduates and graduate students with opportunities to pursue interdisciplinary research in space-related fields. Further information about the Consortium can be found on the World Wide Web. The URL is http://www.public.iastate.edu/~isgc

The lowa Teachers Conservation Camp is a field laboratory program in Iowa conservation problems and environmental education which is offered at various locations in lowa each summer.

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, IA 50614-0421.

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 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.

Saturday and Evening Classes: A variety of University courses are scheduled for evening hours and for Saturday morning and include courses for both undergraduate and graduate students. Currently the evening degree program consists of 12 undergraduate majors, 8 undergraduate minors, 2 undergraduate certificate programs, and 18 graduate degrees, all available through evening study only. For specific information contact the Division of Continuing Education and Special Programs.

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.

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, seniors and recent graduates 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 103 of the Student Services Center.

## Admission Requirements

## Admission of Undergraduate Students Directly from High School

Applicants must submit a formal application for admission, together with a $\$ 20$ application fee ( $\$ 50$ for international students), and have their secondary school provide an official 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 international 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 high schools who have the subject matter background as required and who rank in the upper onehalf 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; or
C. Be denied admission.
2. 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.
3. 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, such as the GED, which will demonstrate that they are adequately prepared for academic study.
4. 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.
5. In rare situations, exceptional students may be admitted as fulltime or part-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

Applicants must submit an application form for admission, together with a $\$ 20$ application fee ( $\$ 50$ for international students), and request that each college they have attended send an official transcript of record to the Office of Admissions. Failure to provide transcripts from all colleges or universities attended may result in denial of the application or dismissal from the University. If less than 24 semester hours of graded transferable college credit will be completed prior to entry at Northern Iowa, applicants should also request that their official high school transcript and ACT or SAT scores be sent to the Office of


Admissions. Other transfer applicants may be asked to provide high school academic information. The Test of English as a Foreign Language (TOEFL) is required of international students whose first language is not English.

1. Transfer students are defined as those with twenty-four (24) or more semester hours of transferable college credit. Transfer students must have or exceed the following combination of grade point and total graded transferable semester hours for admission to UNI.

$$
\begin{array}{ll}
24-41 \text { hours } & 2.50 \mathrm{GPA} \\
42-59 \text { hours } & 2.25 \mathrm{GPA} \\
60 \text { or more hours } & 2.00 \mathrm{GPA}
\end{array}
$$

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; or
C. Be denied admission.
2. Admission of students with fewer than twenty-four semester hours of transferable 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 of 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 University of Northern Iowa endorses the Joint Statement on Transfer and Award of Academic Credit approved by the American Council on Education (ACE) and the American Association of Collegiate Registrars and Admission Officers (AACRAO). The current issue of Transfer Credit Practices of Selected Educational Institutions, published by the American Association of Collegiate Registrars and Admissions Officers, and publications of the American Council on Education are examples of references used by the universities in determining transfer credit. The acceptance and use of transfer credit are subject to limitations in accordance with existing educational policies of the University of Northern Iowa.

1. Students from regionally accredited colleges and universities. Credit earned at regionally accredited colleges and universities is acceptable for transfer except that credit in courses determined by the 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.
No more than 65 semester hours of credit earned at two-year colleges can be applied to a bachelor's degree from the University of Northern Iowa.
2. Students from colleges and universities which have candidate status. Credit earned at colleges and universities which have become candidates for accreditation by a regional association is acceptable for transfer in a manner similar to that from regionally accredited colleges and universities if the credit is applicable to the bachelor's degree at the University of Northern Iowa. Credit earned at the junior and senior classification from an accredited two-year college which has received approval by a regional accrediting association for change to a four-year college may be accepted by the University.
3. Students from colleges and universities not regionally accredited. Credit earned at colleges and universities that are not regionally accredited is not accepted in transfer. When students are admitted from colleges and universities not regionally accredited, the University of Northern lowa will determine if the student may validate 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.
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, its recognition by the educational authorities of the foreign country, 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 individual countries.


## High School Preparation for Undergraduate Admission

Students entering the University must have completed the following set of high school courses (units) or their equivalents. These high school units apply to entering freshmen and transfer students with less than 24 semester hours of transferable college credit.
$\left.\begin{array}{lll}\text { Subject } & \begin{array}{l}\text { Requirement } \\ \text { English }\end{array} & \begin{array}{l}\text { Explanation } \\ \text { Must include } 1 \text { year of composition. } \\ \text { May include } 1 \text { year of speech, com- } \\ \text { munications and/or journalism. }\end{array} \\ \text { Must include equivalent of algebra, } \\ \text { geometry, and advanced algebra. }\end{array}\right\}$

## Admission Requirements for Graduate Students

Admission to graduate study does not guarantee admission to an advanced degree program. Responsibility for determining eligibility for admission to graduate degree programs rests primarily with the academic departments. The academic departments are responsible for receiving degree status admission applications and for determination of admissibility. (See pages xox-xox for further details.)

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 her/his application for admission has been approved. See page xox 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.
Note: 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.

## Classification of Residents and Nonresidents for Admission, Tuition, and Fee <br> 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 lowa for such purposes as voting, or holding an Iowa driver's license, and not meet the residency requirements as established by the Board of Regents, State of Iowa 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 nonsupport and the fact that the student was not listed as a depen dent on tax returns for the past year and will not be so listed in future years;
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 Board of Regents, State of Iowa may be accorded immediate resident status for admission, tuition, and fee purposes where the person:
4. Comes directly to the state of Iowa from a refugee facility or port of debarkation, or
5. 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:
6. 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.
7. Reliance upon Iowa resources for financial support.
8. Domicile in Iowa of persons legally responsible for the student.
9. Former domicile in the state and maintenance of significant connections therein while absent.
10. Acceptance of an offer of permanent employment in Iowa.
11. Other facts 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:
12. Voting or registration for voting.
13. Employment in any position normally filled by a student.
14. The lease of living quarters.
15. Admission to a licensed practicing profession in Iowa.
16. Automobile registration.
17. Public records, for example, birth and marriage records, Iowa driver's license.
18. Continuous presence in Iowa during periods when not enrolled in school.
19. 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 sixteen weeks each ( 15 weeks of instruction and 1 week of final exams). One semester hour of credit is based on one hour of work per week for fifteen weeks.
Summer Sessions - The 2000 and 2001 summer sessions will include a full eight-week session, three 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 8:00 a.m.-12:00 noon and 1:00-5:00 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 to maximize your exposure to the university and its services.

All university offices are also closed for the following holidays:

| 2000 | 2001 |
| :--- | :--- |
| Fri., Dec. 31 | Mon., Jan. 1 |
| Mon., Jan. 17 | Mon., Jan. 15 |
| Mon., May 29 | Mon., May 28 |
| Tues., July 4 | Wed., July 4 |
| Mon., Sept. 4 | Mon., Sept. 3 |
| Thur., Nov. 23 | Thur., Nov. 22 |
| Fri., Nov. 24 | Fri., Nov. 23 |
| Mon., Dec. 25 | Mon., Dec. 24 |
| Tues., Dec. 26 | Tues., Dec. 25 |

The University's academic calendar and holidays are subject to approval by the Board of Regents, State of lowa.



## 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 an absence of a semester or more 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. 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 Fmancial Aid

## Student Costs

The overall costs for undergraduate students who are residents of Iowa is approximately $\$ 10,946$ for the academic year.

| Tuition | $\$ 2,906$ |
| :--- | ---: |
| Fees | $\$ 224$ |
| Board and Room | $\$ 4,200$ |
| Books, supplies and incidentals | $\$ 3,616$ |

Non-resident students are charged an additional \$4,964 tuition.
Students are required to provide their own books. Ordinarily the cost for these books will be $\$ 750$ 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.

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

| Effective June 1,2000 |  |
| :--- | :--- |
| Iowa | Non- |
| Residents | Residents |

## I. Tuition

A. Fall Semester, Spring Semester, or Summer Session* Undergraduate Credit Hours

| 1 | $\$ 244$ | $\$ 244$ |
| :--- | ---: | ---: |
| 2 | 244 | 244 |
| 3 | 366 | 366 |
| 4 | 488 | 488 |
| $5^{* *}$ | 610 | 1640 |
| 6 | 732 | 1968 |
| 7 | 854 | 2296 |
| 8 | 976 | 2624 |
| 9 | 1098 | 2952 |
| 10 | 1220 | 3280 |
| 11 | 1342 | 3608 |
| 12 or more | 1453 | 3935 |
|  |  |  |
| Graduate Credit Hours |  |  |
| 1 | $\$ 384$ | $\$ 384$ |
| 2 | 384 | 384 |
| 3 | 576 | 576 |
| 4 | 768 | 768 |
| $5^{* *}$ | 960 | 2365 |
| 6 | 1152 | 2838 |
| 7 | 1344 | 3311 |
| 8 | 1536 | 3784 |
| 9 or more | 1726 | 4254 |

B. Workshops (xxx:033, 133,233) are paid on a credit-hour basis, without regard to resident status, and are assessed separately from the above schedule.

$$
\begin{array}{lll}
\text { Undergraduate } & 122 & 122 \\
\text { Graduate } & 192 & 192
\end{array}
$$

*Includes $\$ 93.70$ per student for the fall or spring semester or $\$ 41.15$ per student for summer session for student activities and specified building and debt service fees.
** A mandatory health fee of $\$ 51$ will be added to registrations of five or more hours.
A mandatory computer fee will be added to registrations as follows:

| Undergraduate |  |
| :--- | ---: |
| 12 or more hours | $\$ 61.00$ |
| $9-11$ hours | 45.75 |
| $6-8$ hours | 30.50 |
| $1-5$ hours | 15.25 |

## Graduate

9 or more hours $\$ 61.00$
$7-8$ hours $\quad 45.75$
$4-6$ hours
30.50

1-3 hours
15.25

## II. Residence Hall Fees

Specific information on fees may be obtained from Department of Residence, Redeker Center.
III. Other Fees
A. Application for admission to the University $\$ 20$
B. Application for admission of International Students ..... 50
C. Applied Music (in addition to tuition)
Private Lessons - $1 / 2$ hour per week ( 1 credit hour) ..... 90
Private Lessons - 1 hour per week ( 2 credit hours) ..... 130
Group voice, group piano (groups of 4 or more) ..... 30
Instrument rental (per instrument) ..... 15
D. Change of Registration, per form (after 7 class days) .....  5
E. Correspondence Study, per credit hour ..... 92
(plus an enrollment fee of $\$ 13.00$ per course)
F. Credit by Examination, per course ..... 50
G. Deferred Payment Fee, per semester ..... 15
H. Duplicate copy of class schedule .....  1
I. Extension Course, per credit hour Undergraduate ..... 122
Graduate ..... 192
MBA ..... 250
J. ID Card replacement .....  .15
K. Late registration ..... 20
L. Non-credit remedial courses, per credit hour (in addition to tuition) ..... 122
M. Orientation Services
Administrative Fee - Freshmen ..... 35
Administrative Fee - Transfer ..... 35
N. Restricted Enrollment Fee, per occurrence ..... 20
O. Returned Check Fee, per check ..... 20
P. Transcript of academic record Per Copy .....  6
Immediate service (per transcript) .....  8
FAX service per copy .....  5
Q. Workshop/Telecourse
Undergraduate, per credit hour ..... 122
Graduate, per credit hour ..... 192

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 $\$ 15$ 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 page xxx for information on withdrawal refunds and fee reduction.

## Financial Aid Office

The University of Northern Iowa, through the Financial Aid Office, administers 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/Student Employment Center is located:
Financial Aid Office
116 Gilchrist Hall, Cedar Falls, IA 50614-0024
Telephone: 319-273-2700 or 1-800-772-2736
Fax: 319-273-6950
World Wide Web: http://www.uni.edu/finaid
Student Employment Center
116 Gilchrist Hall, Cedar Falls, IA 50614-0024
Telephone: 319-273-6394
Office Hours 8:00 a.m. - 5:00 p.m.
Summer Hours 7:30 a.m. - 4:30 p.m.

## Federal Student Aid Programs

Students must complete a Free Application for Federal Student Aid (FAFSA) form to have eligibility determined for a Pell Grant, Supplemental Educational Opportunity Grant (SEOG), Perkins Loan, Work Study, or Direct Stafford Loans (subsidized and unsubsidized). Students need to apply for financial aid each year. Applying for a Parent Loan for Undergraduate Students (PLUS) does not require the completion of a FAFSA, however, it is recommended.

Qualifying for student aid requires enrollment of at least halftime, and admission in a degree or certificate program. Financial aid is not available for correspondence, Camp Adventure or audited courses.

Pell Grants -- These awards help undergraduates pay for their education while working on their first bachelor's degree. Amounts range up to $\$ 3,300$, depending on need and enrollment status. A Pell Grant does not have to be repaid.

Supplemental Educational Opportunity Grants (SEOG) -This program targets students receiving a Pell Grant and having exceptional financial need. Awards range up to $\$ 1,000$ per academic year. A SEOG does not have to be repaid.

Perkins Loan -- Perkins Loans awards are based on need and range from $\$ 200$ to $\$ 3,000$. Interest begins accruing 9 months after the borrower is no longer at least a half-time student. Repayment to the University is made in monthly installments. Deferments are possible if a borrower returns to college at least half-time.

Federal, State and UNI Work Study - These are programs for students with financial need who desire employment to help pay for educational expenses. Both undergraduate and graduate students can qualify for work study. The minimum pay rate is $\$ 5.60$ per hour.

Direct Stafford Loan (subsidized and unsubsidized) -- The Subsidized Stafford Loan is based on financial eligibility. The Unsubsidized Stafford Loan is available to all degree-seeking students. Freshman students may borrow up to $\$ 2,625$ for an academic year. Sophomore students may borrow up to $\$ 3,500$. Junior or senior students may borrow up to $\$ 5,500$. The total amount an undergraduate may have outstanding cannot exceed $\$ 23,000$. Graduate students may borrow up to $\$ 8,500$ for an academic year. The total amount any one student may borrow for a combined undergraduate and graduate program may not exceed $\$ 65,500$. Repayment begins six months after the student ceases to be enrolled at least half-time. Interest rate is variable and will not exceed $8.25 \%$.

Parent Loan for Undergraduate Student (PLUS) -- A parent of a dependent student may be eligible for an amount up to the cost of education less any other Direct Stafford Loan, financial aid, or scholarship money available to the student to use for educational expenses. The interest is variable but will not exceed $9 \%$. Repayment begins within 60 days following the disbursement of the loan.

## Standards of Satisfactory Progress for Financial Aid Eligibility

Standards of Satisfactory Progress is a two-part federal regulation to ensure that students receiving aid are:

1) making satisfactory progress toward a degree, and
2) completing a degree within a specific time period, regardless if financial aid was received in the past.
The aid programs that are affected are: 1) Pell Grant, 2) Perkins Loan, 3) Supplemental Educational Opportunity Grant, 4) Federal, State, and UNI Work Study, 5) UNI Grant, 6) Iowa Grant, 7) Direct Stafford Loan (subsidized and unsubsidized), and 8) Direct Parent Loan for Undergraduate Students.

## 1) Making Progress Toward a Degree Each Semester

Only Fall and Spring semesters are evaluated. (Summer is not evaluated.) The first semester a student attends UNI is viewed as an adjustment period and is not evaluated.

## Undergraduate/Graduate/Doctorate

Students who enroll full-time ( 12 credit hours or more per semester) are required to complete a minimum of 9 credit hours per semester.

Students who enroll 6-11 credit hours per semester are required to complete a minimum of 6 credit hours per semester.

Students who enroll 1-5 credit hours per semester are required to complete all the hours enrolled that semester.

## 2) Completing A Degree Within a Specific Time Frame For Financial Aid Eligibility

The total academic record (Summer included) is reviewed, regardless if aid was received or credit was earned at UNI.

First BA students are required to complete a degree within 12 fulltime semesters, 18 three-quarter time semesters, or 24 half-time semesters or upon completing 186 credit hours.

Second BA/Teaching Certification/1st MA/1st Doctorate students are required to complete a degree within 6 semesters or upon completing 45 credit hours. Please inform the Financial Aid Office if your program requires more than 45 credit hours.

Other degrees, such as 2nd BA, 2nd MA, 2nd Doctorate after beginning a 1st MA, must be funded by the student without financial aid. (Exceptions may be allowed through the Appeal Process as indicated below.)

## 3) Other Guidelines

Grades - Grades of A, B, C, D, Cr, or P are counted as meeting the required hours. Failed classes, audited classes, incomplete grades, and withdrawn classes are not counted toward completed hours for Satisfactory Progress.

Financial Aid Academic Progress Warning -- With the exception of the first semester at UNI as stated above, the first semester in which a student does not complete Satisfactory Academic Progress, the student will receive a warning notification, but will continue to be eligible for financial aid. Also, a student who is nearing the allotted time frame to complete a degree will be notified and informed of the number of financial aid semesters remaining.

Not Eligible Status for Financial Aid -- Once a student has received a warning, any subsequent Fall or Spring semester in which the student does not maintain Satisfactory Progress will result in the student being notified about the loss of financial aid eligibility. A student who has reached the allotted time frame to complete a degree will also lose financial aid eligibility. Please contact the Financial Aid Office if the graduate program requires more than 45 credit hours.

Appeal Process and Deadline - An appeal process is in place for those experiencing extenuating circumstances that affected their ability to make satisfactory academic progress. Appeal forms may be obtained from the Financial Aid Office. Appeals must be submitted within 30 days of the date on the academic progress letter or 30 days into the start of the suspended semester, whatever is later. A written outline of required course work per semester until graduation signed and dated by the student and the advisor is required.

Reinstatement of Financial Aid -- Students approved to receive aid again will be expected to adhere to the Satisfactory Progress Policy outlined above and any conditions listed on the Appeal Approval Contract.

Financial Aid Adjustment -- If financial aid has already been awarded and an appeal is not completed or approved, the financial aid funds will be canceled 30 days after the start of the suspended semester. Reinstatement of the financial aid is contingent upon the availability of the funds at the time the appeal is approved.

Grant Adjustment -- Grants are need-based aid. The Pell Grant Program is for students working on their first B.A. degree. Due to federal regulation and University policy, the actual amount of Grant that you receive is based on the number of credit/hours for which you are enrolled.

This means that if a Grant has already been disbursed to you and you add or drop classes during the first 3 weeks of the semester, your

Grant will be adjusted. After the third week of classes Grants do NOT adjust. If you have any questions about how your Grant may be affected by adding or dropping a class, please contact the Financial Aid Office, 116 Gilchrist.

Correspondence, Camp Adventure, Audited Courses -Financial aid is not available for correspondence study, Camp Adventure, or audited courses. If you have any questions regarding this policy, please contact the Financial Aid Office at 319-273-2700.

Student Loans - Students must complete a Free Application for Federal Student Aid (FAFSA), then return a signed Financial Aid Award Letter and Promissory Note to the Financial Aid Office. You will sign only one promissory note that will be used for all of your loans at UNI. By using the MPN, you may not need to sign and submit a separate promissory note for each new loan. A student who borrows under the Direct Loan Program at UNI will be able to borrow under this one MPN up to ten years. If you borrowed a Direct Loan at UNI in the prior academic year, you do not need to complete another promissory note. However, you must return your award letter indicating if you wish to accept all or decrease the loan offered amount. Students must also be degree-seeking and enrolled at least half-time ( 6 hours for undergraduate, 5 hours for graduate) before loan funds can be released. All loan proceeds are credited directly to your university bill.

How Dropping Credit Hours or Withdrawing from UNI Affects Financial Aid -- If you drop credit hours or withdraw from UNI, your cost of attendance and financial aid may be revised to reflect any tuition adjustment. You may have to repay a portion or all of your financial aid as required by law or by applicable fund donor. The exact amount of repayment will vary depending on when the credits are dropped or when the withdrawal occurs. In addition, you may become ineligible for future financial aid due to failure to meet the Financial Aid Academic Progress Requirements.

Federal regulations require students who withdraw before over $60 \%$ of the semester has passed to return unearned federal aid in a proportion equal to the time not in attendance. For example, if a student completes $30 \%$ of the semester, then $30 \%$ of the federal aid received may be retained and the other $70 \%$ of the federal aid received must be returned. If a student withdraws after the $60 \%$ point in time of the semester, then all aid received may be retained. Loans must be paid back according to the loan agreement. Institutional and state aid are returned in percentages equal to the institution's tuition and fees refund policy (see page $\mathbf{x 0 x}$ ). For example, if a student receives $25 \%$ tuition refund, then an equal percentage of $25 \%$ will be returned to all state and institutional aid programs. Contact the Financial Aid Office for more information.

Funds will be returned to the financial aid programs in the following order: federal loan programs, federal grant programs, state programs, UNI programs, outside agencies, student. You will be notified of adjustments to your financial aid award via your university bill.

## Grants and Scholarships

UNI Grants -- These institutional grants are need-based, nonrepayable gifts, ranging from $\$ 400$ to $\$ 1,000$. The exact amount of the grant depends upon the student's financial need as indicated by the results of their FAFSA.

Federal Grants -- Federal grants are intended to assist students whose FAFSA results indicate a high level of financial need. The amount ranges from $\$ 400$ to $\$ 3,300$. The federal government has the Pell Grant and Supplemental Educational Opportunity Grant (SEOG) available for undergraduate students who complete the FAFSA and demonstrate high financial need.

State Grants -- State grants are available for Iowa students who are enrolled at least half-time who complete a FAFSA and demonstrate financial need. The grants are awarded based upon an Iowa undergraduate student's expected family contribution. Iowa grant awards range up to $\$ 1,000$ per year. The IMAGES grant is also available for Iowa minority students enrolled at least half-time. Awards range from $\$ 200$ to \$2,000.

Scholarships -- A wide variety of scholarships are available at the University of Northern Iowa for students who are academically qualified. Scholarships are also available to students with outstanding creative or performing talent. Most scholarships for freshmen are awarded to students who rank in the top quarter of their high school class, or from non-ranking high schools and have an ACT composite score of 27 or above. Two-year college transfer students must have a minimum 3.25 cumulative grade point average. For a complete listing of scholarships for incoming freshmen and transfer students, check the financial aid web site at $h t t p: / / w w w . u n i . e d u / f i n a i d / s c h o l a r s h i p s$

Graduate Scholarships and Assistantships - Several scholarships and awards, including tuition scholarships, are available for graduate students at Northern Iowa. Students should contact the department or academic college in charge of their program for information on eligibility and application procedures. Students may locate the scholarship book at http://www.uni.edu/finaid/scholarships, which gives a complete listing of all scholarships available for graduate students and currently enrolled UNI students.

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 $\$ 2,000$ per 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 University of Northern Iowa, Cedar Falls, IA 50614-0006, (319)273-6801.

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 November 15th) of their senior year. Winners are announced the following March.
A four-year scholarship will pay full tuition and required educational fees; provide $\$ 225$ per semester for textbooks, supplies and equipment; and provide a subsistence allowance of up to $\$ 2,000$ per 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 May.

A three-year scholarship will pay up to $\$ 5,000$ per year toward tuition and required educational fees; provide \$225 per semester for textbooks, supplies and equipment; and provide a subsistence allowance of up to $\$ 2,000$ per 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, juniors, and seniors can attend the Army ROTC Basic Camp at Fort Knox, Kentucky, and while there, apply for and earn a Leadership Scholarship.

A two-year Basic Camp scholarship will pay up to $\$ 5,000$ per year toward tuition and required educational fees; pro-
vide $\$ 225$ per semester for textbooks, supplies and equipment; and provide a subsistence allowance of up to $\$ 2,000$ per 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. Prior service applicants may apply on campus; military reservists may apply on campus or 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. You will fulfill your obligation in the Army National Guard or Reserves only. If already in the Guard or Reserve, you incur a six-year commitment of military service.

A Reserve Forces Duty Scholarship will pay up to $\$ 5,000$ per year toward tuition and required educational fees; provide $\$ 225$ per semester for textbooks, supplies and equipment; and provide a subsistence allowance of up to $\$ 2,000$ per 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 West Gym (Room 203), UNI campus; or call the Scholarship Advisor at (319) 273-6178 or (319) 273-6337.
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.

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.)

1. Scholarships for graduate students: Day Dugan Scholarship; Irene Thompson Scholarship.
2. Scholarships for undergraduate majors or pre-majors: Robert and Ruth Hill Memorial Scholarship; Merrill J. Oster Scholarship; IES Industries Business Scholarship.
3. Scholarships for undergraduates who have attended at least one semester at UNI and are admitted to the College of Business Administration, or Economics 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; Pella Honors Scholarship; Irene Thompson Scholarship; T, Wayne Davis Fellowship.
4. Scholarship for Office Information Systems Majors: Kay Humphrey Memorial Scholarship.
5. 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 Radell Scholarship; Mike Rod Memorial Scholarship.
6. Scholarships for Economics Majors (not available to freshmen): Charles Leavitt Economics Scholarship; F. Russell Glasener Economics Scholarship.
Industrial Technology Department - (Contact the department for more specific information about these scholarships.)
7. 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 by the first week in November.
8. Program Area Scholarships are awarded to students with a major in one of the following program areas: Construction Management, Electro-Mechanical Systems, Graphic Communications, Manufacturing Technology, and Technology Education.
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.

UNI Athletic Grants-In-Aid Awards are available for incoming student-athletes as well as returning students. Athletics GIA are awarded in dollar values up to and including Full Grants of tuition, room and board, and books. Athletics GIA are awarded for one term periods, however GIA's are renewable in accordance with NCAA and conference rules. GIA recipients must meet NCAA, Conference, and Institutional requirements for admission and/or the satisfactory progress rules of same. Recommendations for athletics GIA awards are made by the coaches of the individual sport programs. Athletics GIA awards are provided in part by the Athletic Club (contributions), gate receipts, and friends of the University.

## UNI Parents 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 and the award realized the 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 Development, 205 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.

## UNI Presidential Scholars Program

The Presidential Scholarship is the most prestigious scholarship awarded by the University of Northern Iowa. Presidential Scholars represent a select group of students whose academic interests are matched by personal qualities of leadership, involvement, and service.

Each year, 45 young men and women will be selected to interview for the scholarship program. Fifteen will be selected as Presidential Scholars, and 30 will receive either the Provost Scholarship or the University Scholarship.

Presidential Scholarship -- Applicants must be freshmen enrolling directly from high school, rank in the upper $10 \%$ of their high school class (or rank as one of the top five students in a class of 50 or less), receive an ACT composite score of 29 or above, and request that UNI receive their ACT scores by August 1 , prior to their senior year in high school. Students who meet these criteria and are on the University's mailing list will receive an invitation to apply for a Presidential Scholarship near the time school starts in the fall. Students may also call to receive an application prior to the October 1 deadline.

Selection is based on academic excellence, extracurricular achievements and leadership, and demonstrated potential for making a significant contribution to society. The final screening will include an interview with members of the Presidential Scholars Board and writing an essay during a visit to the Northern Iowa campus.

Presidential Scholars will follow a special program of study that includes seminars each semester on a variety of topics and a required senior thesis or project in their field.

Amount: Tuition, mandatory University fees, room and board (over $\$ 6,000$ per year in-state and $\$ 10,000$ out-of-state). Renewable each year for four years by maintaining 3.50 GPA and participating in the program.

Number offered: 15
Provost Scholarship - Applicants must meet the same criteria as the Presidential Scholars and follow the same application procedures. Provost Scholars are selected from those who interview for a Presidential Scholarship.

Amount: Tuition plus mandatory University fees (over $\$ 2,700$ per year in-state and $\$ 7,000$ out-of-state). Renewable each year for four years by maintaining 3.25 GPA and participating in the program.

Number offered: 15
University Scholarship - Applicants must meet the same criteria as the Presidential Scholars and follow the same application procedures. University Scholarship recipients are selected from among those candidates who interview for a Presidential Scholarship.

Amount: $\$ 1,000$ per year, renewable each year for four years by maintaining a 3.00 GPA .

Number offered: 15

## Direct inquiries to:

Office of Vice President for Educational and Student Services
SSC 103
University of Northern Iowa
Cedar Falls, IA 50614-0382
(319) 273-2331

## 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. The generosity of alumni and friends of the University of Northern Iowa provided over $\$ 1.5$ million in scholarships for eligible students in 199899 , and this figure continues to grow every year. 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 and 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, and 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 available educational opportunities and university services and to assist them in the class 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.

## Housing

## http://www.uni.edu/dor

## Application for Rooms in Residence Halls

Official admission to the University of Northern Iowa is a prerequisite to receive information for housing in the residence halls. Once new students are admitted, the Department of Residence sends the Home Away From Home magazine to each student. Included in the magazine is information about each residence hall, the dining operations and the housing and dining contract.

The residence hall and dining contract serves as the official application for housing in the residence halls. The Department of Residence will process the contract when both the completed contract and a $\$ 100$ prepayment are returned to the department. Room assignments are made on a date-of-prepayment basis. If an applicant finds it necessary to cancel the contract before occupying the room, the prepayment is credited or refunded if cancelled before May 15 for Fall semester or December 15 for Spring semester.

Inquiries should be directed to:
Department of Residence
Redeker Center
Cedar Falls, IA 50614-0252
(319) 273-2333

## Occupancy

The residence halls open for new and returning students on the Friday before the beginning of classes for the fall term; and the Friday before classes begin for the spring 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 and the prepayment forfeited.


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 and $20 \%$ of remaining portion of contract.

## Residence Halls

The Department of Residence is designed to provide housing to 4,541 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.

Floors within each residence hall accommodate approximately 50 students and 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 Hagemann and Lawther. Coeducational housing is provided in Bartlett, Bender, Dancer, Noehren, Rider, and Shull Halls. Continuous housing (during academic break periods) is available in Bartlett, Bender, Dancer, Noehren and Rider Halls. All halls are open during the Thanksgiving and Spring breaks.

## ROTH Complex

Apartment and suite-style housing is open to sophomores, juniors, and seniors. Residents in good academic and behavioral standing who have lived in residence halls the longest will have the highest priority for obtaining residence there. ROTH residents either prepare their own meals or buy one of the many dining plans available. If you want to live in ROTH, you may obtain printed material about eligibility, facilities and services, and an application from the Department of Residence, Redeker Center (319) 273-2333 or from ROTH (319) 273-7051.

insurance. Information on the coverage and the cost of this insurance is available in the Health Clinic. International students are required to have health insurance as a condition of admission and should contact the International Programs Office regarding appropriate coverage.

## Counseling Center

The Counseling Center is located in the Student Services Center, Room 213. The Counseling Center is staffed with professional counselors and psychologists who provide confidential counseling services to students without charge. Services include:
individual, couples, and group therapy
crisis management
clinical consultation to faculty and staff
class and group presentation on various mental health issues referral services to other programs and agencies
Appointments for counseling may be made directly at the Counseling Center or by calling (319) 273-2676. As a general rule, clients in crisis will be offered services immediately. Clients who are not in crisis will be offered the first available appointment time. More information is available at $h$ ttp://www. uni.edu/counseling.

## Office of Disability Services (ODS)

The Office of Disability Services is located within the Counseling Center, Room 213, of the Student Services Center. The ODS works with students and employees to ensure that all persons with disabilities have access to university activities, programs, and services. Specialized services are provided to enhance the overall academic, career, and personal development of each person with a physical, psychiatric, or learning disability. To obtain information regarding services, call the ODS at (319) 273-2676. More information is available at
http://www.uni.edu/counseling/ODS.html.

## Wellness and Recreation Services

The Wellness and Recreation Center, located next to the UNIDome, is home to the School of Health, Physical Education and Leisure Services, an academic department in the College of Education, and Wellness and Recreation Services, a service program in the Division of Educational and Student Services.

The mission of Wellness and Recreation Services (WRS) is to enhance the personal, professional, and academic lives of university students, faculty, and staff. This is accomplished through: structured and self-directed activities for fun, competition, fitness, leisure, and socialization; educational programs and services for health of mind, body, and spirit; skill-and-leadership-building activities, including student volunteer, internship, and employment opportunities; and cam-pus-wide initiatives to enhance the living and working environment of the university community.

Specific WRS programs include:
informal recreation/fitness/aquatic opportunities
personal fitness services
intramural sports
instructional activities
outdoor recreation programs and equipment rental, along with
indoor climbing opportunities
sport clubs
health and wellness programs
substance abuse prevention and education programs
sexual abuse prevention programs and victims services
To meet the needs and interests of the campus community, WRS programs and services are not only offered in the Wellness and Recreation Center, but at a variety of sites throughout campus. Customer service is always a priority. Therefore, input and suggestions from students, faculty, and staff are given serious consideration. Besides personally contacting any of the WRS staff, program input can be made through the WRS Advisory Committee, which consists of a representative group of students, faculty, and staff. A list of committee members is available at the WRS Office or through the WRS website http://www.uni.edu/wellrec.

## The Career Center

The Career Center, located in Student Services Center Room 19, is a centralized office providing services related to the broad areas of career-readiness and to the more specific area of opportunities for graduates. For further information regarding the following services visit the Career Center website at http://www.uni.edu/placemnt or contact the office at (319) 273-6857.

Career Services. Career Services assists students and alumni with a range of career- related questions and concerns. Programs, consultation, and resources from Career Services can be categorized into four areas -- decision-making, career exploration, career/employer information, and career-related experience.

Decision-Making: For those wanting assistance with the process of deciding on or changing career directions, Career Services offers written, videotaped, and internet-based 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 available, as well as individual counseling.

## University Apartments

One- and two-bedroom unfurnished apartments are available to married students, single parents with families, graduate students, and non-traditional students. Assignments are made on a date-of-application priority basis with married and single student parents with families having priority over graduate and non-traditional students. Applications and all inquiries should be directed to:

University Apartments Office
3900 Jennings Drive -- Hillside Courts
Cedar Falls, IA 50613
(319) 273-6232

## Dining Service

Dining service is provided in eleven dining operations across campus. The customary "full meal" contract is for nineteen meals per week; brunch and dinner only on Saturday and Sunday. Two other meal plan options are available: Any 14 meals per week; and any 10 meals per week. A student who lives off campus may contract to eat some or all meals in a university dining center.

## Academic Advising Services

Academic Advising Services are designed to assist students in planning their educational programs, developing their academic skills, and using resources of the University to meet their specific educational needs. Students are provided services through three interconnecting functions: Academic Advising, Examination and Evaluation Services, and Reading and Learning Strategies.

Academic Advising. Academic Advising Services coordinates the university-wide advising program, coordinates first-year advising, and serves as the academic center for "deciding students" who are exploring majors. Academic Advising supports Student Athlete Academic Assistance. 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 a professional advisor in Academic Advising Services if they are in the process of exploring major options.

UNI prides itself in being a caring academic community which places a high value on students' active participation in their educational experience. Our philosophy is one of student-centered developmental advising. This means we place students at the center of our efforts and believe students are capable, with sufficient information and support, of directing their own academic lives at UNI. This requires that students be active participants in the academic advising process. Advisors assist students in selecting appropriate courses and other educational experiences, clarifying life and career goals, developing decision-making skills, and interpreting institutional academic requirements. 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 make considered choices about their personal and educational lives

Advising provided by Academic Advising Services is open to all students. Students receive assistance in selecting majors, minors, and certificate programs; selecting courses; scheduling; and identifying and resolving academic difficulties. Individual conferences, special programs, and courses help freshmen, who have not decided upon a major, set realistic first-year goals.

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, IA 50614-0383.

Examination and Evaluation Services. Examination Services for most major national college and professional school entrance examinations, certification examinations, and credit by examination are offered in the Advising Center. Services are provided for both enrolled graduate and undergraduate students as well as non-students. In addition to test administration, Examination and Evaluation Services provides test registration and preparation assistance, conducts student research, and provides consultation and interpretation. The Services is a resource to students, faculty, and the community concerning many aspects of educational testing and student research.

Reading and Learning Strategies. Academic Advising Services 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 and Effective Study Strategies. These are free, four-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 Coordinator or a peer instructor individually.

Information concerning Academic Advising is available on the World Wide Web http://www.uni.edu/acaadvis.

## University Health Services

University Health Services provides comprehensive mental health, physical health, and wellness services to students enrolled at the University of Northern Iowa. Wellness services are also available to employees, retirees and their families. Services are provided by a professional staff including psychologists, physicians, physician assistants, nurses; health educators, counselors, a pharmacist, and a laboratory/xray technician. Services include consultation, treatment, and a full range of health promotion and wellness activities. More detailed information concerning services and hours is available on the World Wide Web http://www.uni.edu/health.

## Health Clinic

The Health Clinic is located in the Student Health Center on the south side of 23rd Street next to the Schindler Education Center and provides out-patient medical services Monday through Friday when classes are in session. Students and spouses, who have paid a health fee, are eligible for care. The clinic includes examination and treatment rooms, a laboratory, x -ray, and pharmacy including over the counter medications. A referral to an area physician will be arranged, if needed, for treatment requiring specialized care. The Student Health Center has an appointment scheduling system.

No charge is made for routine clinic consultations, but a charge is made for medications, injections, immunizations, $x$-rays, lab tests, and other medical services. Charges may be paid in cash or billed to a student's monthly University statement.

When the Health Clinic is closed, residence hall students may discuss a health problem with their Hall Coordinator or Resident Assistant. Hall Coordinators and Resident Assistants may be able to recognize a need for first aid or medical attention. They can suggest 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. Ask-a-Nurse advice may be obtained by calling (319) 272-2600.

A group accident and sickness insurance plan may be purchased through the University on a voluntary basis for those without medical

Career Exploration: Programs from this area offer students and alumni a variety of ways to explore their career interests by connecting with professionals in settings that range from business and industry to government, education and other nonprofit settings. Career exploration activities provided include job shadowing informational interviewing, and short-term, noncredit, hands-on career-related experiences. Activities are open to both declared and undeclared majors.

Career/Employer Information: Job-seekers and students exploring career options and opportunities can find print, video, and computerized information on industries, employers, and job openings, as well as information on job-search processes and strategies. Professional counselors provide one-on-one consultation on locating and using such career- and job-search related information.

Career-Related Experience: The Cooperative Education/Internship Program helps students to make the transition from college to the professional work world by gaining work experience before graduating. Participants in the program earn academic credit and generally receive pay or a stipend for their work. Cooperative Education/Internship experiences provides students with career-and major-related experience and opportunities to develop professional skills. Studies have shown that students with applied experience such as that offered by Co-op/Internships Program have an edge in the job search process. The Co-op/Internships Program is located in the Student Services Center Room 126.

Post-Graduation Planning and Assistance. This area assists prospective graduates and alumni from all academic areas and degree levels with preparing for and locating positions in employment and/or graduate school in accordance with their qualifications and personal interests. Services provided include career and job search counseling and advising; an on-line vacancy service; candidate referral to local, regional and national employers; on-campus interviewing; and career fairs and other recruiting events involving school systems, graduate schools, businesses, government agencies, and nonprofit organizations. The service also provides workshops and other resources on job hunting skills, including mock interviews. Credential services are available to those seeking graduate school admission, as well as to teachers, administrators, and others seeking positions in educational settings.

Individuals are highly encouraged to use The Career Center throughout their college careers. 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 Office of Admissions receives and acts on undergraduate applications, while International Services receives and processes graduate applications. It is the responsibility of International Services to issue Certificates of Eligibility to all admitted students (both F-1 and J1) and invited scholars/researchers/professors. The office sends out housing contracts for on-campus housing along with other pre-departure information to all admitted undergraduate and graduate students, and meets the students at the Waterloo airport when they arrive.

Throughout the year, foreign students may seek the assistance of the International Services Director in academic, personal, and immigration matters.

For information concerning international undergraduate admission, contact the Office of Admissions at (319) 273-2281 or write to the Office of Admissions at UNI, Cedar Falls, IA 50614-0018. Graduate inquiries should be directed to the International Services Office at (319) 273-6421 or write to International Services, UNI, Cedar Falls, IA 50614-0521.

## 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.

Forensics - The forensics program, under the auspices of the Department of Communication Studies, 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. For more information go to the website http://www. uni.edu/forensics.

Fraternities/Sororities - There are four social sororities and seven social fraternities, each nationally affiliated, on the campus. There are also a number of historically Black Greek organizations active on the campus that provide service, social, and leadership opportunities. Persons interested in Greek life must go through a formal or informal recruitment 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 Student Activities Office, which is located 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.

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.

UNI Athletic teams participate within Division I (Football IAA) of the NCAA. The University Athletics Program is a member of the Missouri Valley Conference and the Gateway Football Conference. All eligibility for and sport competition is governed by NCAA and Conference rules and regulations.

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 Student Activities Office in the lower level of Maucker Union.

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, UNI Singers 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.

Northern lowa Student Government - The legislative branch of Student Government at UNI is the Student Senate. The executive members include the president, vice-president, director of administration, and director of programming. 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.

Professional Performing Arts on Campus - See "The Fine and Performing Arts at UNI" section on page 36 for more information.

Religion - Surrounding the campus are various student religious centers. Information on specific religious organizations may be obtained in the Student Activities Office on the lower level of Maucker Union.

Social Life - The social life at the University of Northern Iowa is flexible, designed to meet the ever-changing interests and needs of the students and university community. Social opportunities include 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.

Station KGRK - Station KGRK is the student-managed and -operated radio station of the University of Northern Iowa. The station operates on Channel 5 of the Campus Cable Television System. KGRK programming consists of music, UNI sporting events, and campus news. The studios and offices of KGRK are located in the lower level of Maucker Union. For further information go to http://www.uni.edu/kgrk/web.

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

Student Publications - Two publications are written, illustrated, and edited by students for campus-wide distribution: The Northern Iowan, the student newspaper distributed twice a week during the fall and spring and once a week during the summer session; and Draftings In ..., the scholarly journal for undergraduate and graduate students. Additional publications have been originating from interested students and student organizations.


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, modern and contemporary drama, opera, musical comedy, and theatre for youth. The theatre also produces in the summer season. All members of the university community are invited to attend productions in the Strayer-Wood and Bertha Martin Theatres. For additional information visit the website http://www. uni.edu/theatre.

Union Policy Board - The Union Policy Board of Maucker Union is composed of twelve students and six non-students. 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 several committee chairs. The president and vice-president must be students.

Wellness and Recreation - Wellness and Recreation Services, located within the Wellness and Recreation Center, offers campus-wide programs in informal recreation/fitness/aquatic opportunities, intramural sports, instructional activities, as well as various health, wellness, and educational programs. The Wellness and Recreation Center provides: multipurpose courts for basketball (10), volleyball (10), badminton (27), and tennis (4); 6 racquetball courts; a leisure pool with whirlpool and water slide; an eight lane, 25 -yard lap pool; 4 multi-purpose activity rooms; a dance studio; a 40 -foot climbing wall; an Outdoor Recreation Center; a free-weight workout room; a spacious fitness area with cardiovascular and strength training equipment; a running track; a wellness resource lab with a relaxation and massage room, self-care and wound-care stations, a wellness library and small computer center; and a men's and women's locker and shower facilities. For more information visit the Wellness and Recreation Services website at http://www.uni.edu/health/wellrec.html.

# University Facilities and Educational Services 

## University Facilities

## Rod Library

Centrally located on campus, the Rod Library has a collection of more than 850,000 volumes and more than 3,000 current periodical and newspaper subscriptions to support the curricular and informational needs of UNI's students and faculty. The library occupies a four-story building and completed a major addition and extensive renovation project in 1995. The library provides seating for 1,600 library users at study carrels and tables and has more than 550 additional seating spaces in lounge areas and in group and graduate studies. It also provides studies for faculty and emeritus faculty. The Library also houses the Center for the Enhancement of Teaching, and a student computer center, managed by the university's Information Technology Services.

Services offered include reference services; UNISTAR - an automated system supporting an online public access catalog and automated circulation and acquisitions functions; reserve services; interlibrary loan; online access to LEXIS/NEXIS (a full-text legal and general news service) and several other databases; library instruction services; online searching of textual and bibliographic databases; photocopying (including self-service copiers); and coin-operated typewriters. UNISTAR, LEXIS/NEXIS, and most of the other databases are available to UNI students and faculty through the Web at http://www.library.uni.edu. Additional information about the library can be obtained through its World Wide Web page http://www.library.uni.edu.

In addition to its circulating collection, the library has an extensive general reference collection, a documents and maps collection, an art and music collection, a youth collection, and special collections and archives. 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 sciences, business, and those of general interest. Documents \& Maps includes a collection of more than 271,000 U.S. paper documents, more than 287,000 U.S. and lowa documents on microfiche, and more than 41,000 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 rooms and 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, the American Fiction collection, and the (Senator Charles) Grassley Papers.

The library also has a collection of state, national, and international newspapers, a career collection, and a microform collection of more than 698,000 items, including the ERIC documents microfiche. Many items not held by the library can be obtained from other libraries through its 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 and other sources, including the library's Web page. Further information and assistance can be obtained at the Reference Desk.


## Maucker Union

The Maucker Union, located east of the UNI Library, serven 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 other student organization offices.

The Student Activities Office of Maucker Union is responsible for the programs which focus on co-curricular development of the student. Leadership development, skills development, support for student organizations/interest groups, Greek life, and programming are central to this office and the Union as a whole.

Social and cultural activities include art exhibits, movies, comedy, 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 Georgian Lounge and Slife Balliroom are available for meals, receptions, conferences, and dances, and are open to students, ataliti and campus guests. Additionally, dining facilities are provided here for students.

The Georgian Lounge is used for teas, receptions, and other pectin occasions; the Slife Baliroom is a multi-purpose room used for ban* quets, movies, dances, and lectures.

## University Museum

The University Museum, accredited by the American Association of Museums, is used extensively as an educational resource by both university classes and regional schools and as a cultural facility by local organizations and individual visitors. The museum offers permanent and changing exhibits, tours, lectures, and special programs, as well as internships and research opportunities for students.

The collections of the Museum embrace four major subject categories: geology, biology, anthropology, and history. The geology collection consists of minerals, rocks, and fossils of worldwide distribution. The biology area includes a bird collection consisting of most birds indigenous to the midwest as well as some exotic, rare, and extinct species. Large and small mammals, reptiles, fish, anthropods, and marine invertebrates, including a vast collection of shelis from around the world, are also a part of the biology collection. University, lowa, and local history are represented by a wide variety of antifacts, printed documents, and a costume collection. The anthropology section includes important prehistoric and ethnographic collections from North America, South America, Africa, Asia, the Pacific Islands, and the Middle East.

A public support group known as the Friends of the UNI Museum serves to help the Museum through financial and volunteer 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 4:30 p.m. during the school week. It is closed on legal and university holidays. The Museum is open on Saturdays and Sundays from 1:00 p.m. to 4:00 p.m. 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.

For further information visit the World Wide Web home page http://www.uniedu/museum.

## Marshall Center School

Built in 1893, the Marshall Center School is a symbol of UNI's contribution to Iowa's long record of excellence in education. This historic structure was moved from Pocahontas County in western Iowa to the campus in 1987 to celebrate the early history of the campus as a teachers college. It now serves as a museum telling the story of early Iowa education.

The School served as a school, community meeting place, district school board meeting room, and voting place from 1893 until 1944. It has been restored and furnished as it would have looked circa 1920 and is one of the most authentic one-room school museums in Iowa. Programs are presented at the School to campus classes, regional elementary school groups, and the general public. Storytelling, reenactments, and presentations help visitors step back in time to visualize a typical day at a rural school.

The School is located at the corner of 23 rd and N. Minnesota Streets and open by appointment only. Programs for campus groups, classes, and public groups can be scheduled by contacting the University Museum.

For further information visit the World Wide Web home page http://www.uni.edu/museum.


## Broadcasting Services

The University of Northern Iowa operates two separately programmed public radio services. KUNI-FM serves the Cedar Falls/Waterloo, Cedar Rapids and Iowa City areas at 90.9 FM. KUNI can be heard at 101.7 FM in Des Moines, 98.7 FM in Dubuque, 102.7 FM in Eldridge, and 94.5 FM in the Quad Cities. In addition, KUNI programming is heard in the Mason City and Southern Minnesota area on KUNY at 91.5 FM and on KRNI 1010 AM. 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 jazz and classical music. KHKE is also heard in Mason City-Clear Lake at 90.7 FM. The stations have a large core of active volunteers and are supported by the University and contributions from the listening public. Student internships are available at the stations through the Communication Studies Department. Studios and offices are housed on the third floor of the Communication Arts Center.

For further information, visit the World Wide Web home page http://wwww.uni.edw/kuni or http://www.kuniradio.org

## Office of Public Relations

The central role of the Office of Public Relations is to provide leadership and service in the areas of communication, promotion, advoca$c y$, and outreach to support the University's mission and strategic plan.

News and media relations services works to inform the public about University programs and to promote the accomplishments of students, faculty, and staff through the news media. Radio News Network provides daily actualities to Iowa and regional radio stations that feature expert commentary on current events by UNI faculty and staff. A variety of strategies are employed to reach targeted local, regional, and national print and broadcast media.

The publications services staff offers a complete package of professional advising, writing, editing, design, photography, and print production services. More than 600 different publications are produced annually including the University magazine and tabloid, Northern Iowa Today; admissions marketing publications; CampusNewsNetwork, the faculty and staff newsletter; general University Information pieces; and publications for the University Foundation and Alumni Association.

The Office of Public Relations Teleproduction Center provides broadcast-quality videotaped programming from 30 -second public service announcements to 30 -minute department or program videos. The Center produces video for television news and works with University departments to produce programming for specialized audiences such as prospective students.

The Office of Public Relations also is responsible for the operation of the University Mail Center and Print Services, including Copy Central located in Rod Library. It also operates several outreach activities, including Community Visit Days and the Iowa State Fair exhibit.

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

## The University of Northern Iowa Alumni Association

The Alumni Association's beginnings date back to the days of the Iowa State Normal School. At the commencement exercises of the Class of 1879 , it was decided that the graduates would meet again in one year for the first alumni social. On June 22, 1880, the class met on campus and drafted a constitution and program that would set the course for what is now the University of Northern Iowa Alumni Association.

In its first years, the Alumni Association served mainly as a social and literary group. In 1893, however, a move came from within that suggested the Association should do more for the future of its alma mater. Association members worked closely with then President, Homer Seerley, and were instrumental in the materialization of the University Auditorium in the early 1900's. In 1914, the Association helped raise money for a project that would come to stand as a symbol of the University and its alumni forever, the Campanile.

During the 1920's the Alumni Association expanded its programming to include the celebration of President Seerley's retirement (after 42 years of service) and the institution's 50th anniversary, as well as the expansion of the Association into intra-state branches. The latter was the beginning of a formal system of UNI Alumni Clubs. The first clubs were organized in Des Moines (1906), Waterloo (1907), and Iowa City (1908). Out-of-state expansion included a club in Chicago (1910), and alumni meetings in California and Washington state in 1915 and 1916, respectively. In 1915, the Alumni Association also produced its first alumni newsletter, The Alumnus, to publicize University and Association sponsored events.

Throughout the next decades, the Alumni Association continued to grow and increase its activity to match the expansion of the University and its alumni base. On July 14, 1972, the Board of Directors voted to incorporate the Association and to institute a dues-paying membership program when the costs of conducting extensive alumni programming began rising beyond its revenue.

The role of the Alumni Association in the 1970's and 1980's was to assist in lobbying the Iowa State Legislature for necessary University appropriations, hosting class reunions, coordinating the activities of the UNI Parents Association and presenting educational events, both on and off campus.

The University of Northern Iowa Alumni Association Today -In the past few years, the Alumni Association has conducted record business. In its 1996-97 fiscal year alone, the Association sponsored seven class reunions and more than twenty-five UNI Alumni Club events and alumni receptions. As of June 1999, there were more than 6,300 annual and lifetime members of the Alumni Association, and more than 81,107 graduates records were contained in the alumni database. More than half of all living UNI alumni live in the state of Iowa, although UNI's alumni presence extends worldwide.

The Alumni Association's current list of programs and services includes:

## Alumni activities for on-campus organizations

On-campus departments and organizations may receive mupport from the Alumni Association in the form of alumni lists and labels and, at times, financial support for their alumni-related activities.

## UNI Alumni Clubs

The Alumni Association has a thriving system of alumni chubs nationwide, with participation growing each year. These clubs are active, meeting at least twice annually. Faculty and staff of the University are featured at many of these functions, as are performers from Theatre UNI and the School of Music.

## Class Reunions

Every spring the Golden Reunion honoring the 50th anniversary class is celebrated with a three-day event. This reunion takes place in conjunction with the University's spring commencement. The celebration culminates with the reunion class participating, complete with cap and gown, in commencement exercises. The 60 -year reunion takes place during June, while the $5-, 10-, 25-, 30$-, and 40 -year class reunions occur during the annual Homecoming celebration.

## Heritage Honours Awards

Each year the Alumni Association recognizes alumni and friends of the University of Northern Iowa for their outstanding professional accomplishments and service to the University. The Alumni Achievement Award, the most prestigious award, recognizes alumni who have achieved distinction in their discipline or profession. The Alumni Service Award is presented to alumni who have performed meritorious service to the University of Northern Iowa and their communities. The Young Alumni Award recognizes those alumni with major professional accomplishments who are 35 or younger. The Friend of the University Award honors individuals who are not alumni, but who have given specific service to the University of Northern Iowa. The Distinguished Leadership Award is given to former students of the University, graduates and non-graduates alike, in recognition of the leadership they have demonstrated.

## Homecoming

Each year the University of Northern Iowa Alumni Association and University Homecoming Committee welcome UNI alumni back to campus during a week-long celebration. The annual event usually takes place in mid-October. Highlights of the festivities include window painting on the Hill, Campaniling and the annual Homecoming parade and football game.

## Legislative Advocacy

The Alumni Association plays an active role in carrying out UNI's action plans in the Iowa State Legislature. Association members are informed of the important programs and issues that will affect the University's future.

## Lux Service Award

Of central importance in the official University seal is a burning lamp of knowledge and the Latin word for light, Lux. The Lux Service Award is conferred in the spirit of keeping the light of service to others burning brightly at the University of Northern Iowa.

Since 1984, the University of Northern Iowa Alumni Association, Foundation, and Homecoming Committee have annually awarded the Lux Service Award to one female and one male undergraduate student who best represent the ideal of service to the University community.


## Student Alumni Ambassadors

The Student Alumni Ambassadors (SAA) were organized in 1989 by the Alumni Association and the Office of Admissions to represent the University to potential students and their parents, alumni, and friends. The group is one of the most visible on campus and has been recognized as the Outstanding Organization of the Year four of the last five years. The 50 SAA members maintain a high profile by giving regular campus tours to reunion classes, potential students and prospective faculty members. They also assist the University Advancement Division with Alumni Association and Foundation-sponsored programs and special events. Programs and services sponsored directly by the Student Alumni Ambassadors include the New Student Bash, New Student Record publication, Family Feast Tailgate, Panther Push, Apple Polishers, graduation brunch and Alumni Association Student Membership.

SAA members are interviewed and selected for membership by a committee, and work on a volunteer basis. Members are expected to maintain a 3.0 grade point average during their tenure.

For more information about Alumni Association sponsored programs and services, or alumni or student membership in the University of Northern Iowa Alumni Association, stop by the Office of Alumni Relations, 204 Commons, Cedar Falls, IA 50614-0284, or call (319) 273ALUM, send an e-mail to alumni@uni.edu or visit us on the World Wide Web http://www.uni.edwalumni.

## 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 lowa. Individuals and organizations are assured of continuity of man-
agement 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, IA 50614-0282 http://www. uni.edw/advance

## Educational Services

## Information Technology Services

Information Technology Services (ITS) provides support for computing and networking; multimedia, distance learning, satellite uplink and downlink, imaging, video distribution and production, courseware production, instructional webpage design, administrative systems, telephone services, technology training and consulting to the students, faculty, and staff of the University of Northern Iowa. The University's extensive computing resources are available through an expanding network and complemented by documentation, training, and consulting services.

The Network: Primary access to the UNI computing and information resources is through a multi-layered campus data communication network. The network consists of a fiberoptic backbone interconnecting major resources (mainframes, minicomputers, Local Area Network file servers, and network access servers). Individual workstations may be connected to the network directly, through local area networks, or via modems and telephone lines. The network provides access to all major UNI computing resources, including the online library catalog system (UNISTAR) and the CD-ROM databases, from points on as well as off campus.

The UNI network is 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 from across the country and around the world.

Central Facilities: The principal central computing system for academic use is a Digital Equipment Corporation (DEC) VMScluster, running the Open VMS operating system. This cluster of VMS computer systems provide access to a rich collection of programming languages, editors, statistical programs, database software, and other applications from DEC and third-party vendors.
Other systems in the cluster are used for selected applications and for documentation and software distribution from DEC.

Supplementary resources are provided by a Sun Server running the Solaris, UNIX operating system. This system hosts UNI's World Wide Web space (http://www.uni.edu), which provides information about campus events and other matters of value to the campus community such as the UNI Programs and Courses and UNI Policies and Procedures. The Sun Server also provides access to the UNIX operating environment for selected classes.

Information in the central administrative database is maintained on an IBM mainframe running the MVS operating system. Key applications and information, as well as other university databases and computer files, are easily accessible through the World Wide Web based AccessUNI system. This system provides student access to biographical information, transcripts, class schedules, registration, and other applications.

## University Facilities and Educational Services

Student Computer Centers: Hundreds of microcomputers are available for student use in Student Computer Centers strategically located in the library, Schindler Education Center, the Business Building, the Center for Educational Technology, the Industrial Technology Center, Maucker Union, the Towers Center, and Bridge Lounge between Noehren and Hagemann residences. The microcomputers in these centers are connected to file servers on local area networks, and these file servers are connected to the UNI network for access to all campus computing resources including the VMScluster, the Library Catalog, the Library's CD-ROM databases, the UNI World Wide Web space, and the Internet.

Equipment in these centers consists predominantly of IBM PC compatibles running MS-DOS/Windows, and Apple Macintosh systems. Laser printers are available in all of the centers.

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: In addition to campus-wide computer centers, colleges maintain a variety of specialized facilities. For example, the College of Natural Sciences provides graphics capability of varying types using IBM compatible systems and Apple Macintoshes. The College of Social and Behavioral Sciences provides digitized and plotting equipment as part of its Geographic Information System. The College of Humanities and Fine Arts uses Macintoshes in a special music lab. The Colleges of Business and Education maintain facilities with specialized applications for students in those disciplines.

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, Pascal, and MACRO.

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

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

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

Services: A Computer Consulting Center (Business Building Room 27; 273-5555) is available during normal working hours for answering computer-related questions and assisting with the solution of problems. The Consulting Center telephone is answered by machine at times when staff is not available. Problems which cannot be answered immediately are referred to the ITS 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, UNI's world wide web pages, the Consulting Center attendants, and the ITS staff.

Extensive technology training is offered to faculty, staff, and students. Workshops designed specifically for incoming students are offered in addition to general workshops for the entire university community. Each week during the academic year there are typically six to eight offerings, all free of charge to UNI faculty, staff, and students.

In addition, through grants and contracts, specialized training is provided to off-campus constituencies throughout the State.

Consultation, design, and production for imaging and courseware is provided for a wide variety of media. Services include design and development of instructional web sites; multimedia courseware applica-

tions; audio and video digitalization; CD-ROM production and duplication (data, audio, video, photo) within copyright guidelines, studio and location photography; film processing (black and white and color slide); photographic copy from artwork, printed materials, and photographs; photographic printing (black and white); creating and reproducing computer generated slides; production and duplication of slide graphics including titles, charts, graphs, diagrams, and maps; original artwork, complete typesetting; digital color modification, cropping, and image manipulation or conversion; sound slide series production; and sound track recording, mixing, and synchronization for slide and multiimage series, along with planning, production, and programming.

Support and coordination is provided for use of the Iowa Communications Network (ICN) for distance learning and multimedia conferencing.

A wide variety of audio visual equipment is maintained and loaned for the use of faculty, staff, and students. Media is distributed over cable and other TV systems on campus and in Cedar Falls. Satellite downlink is supported to receive satellite-based programs and conferences as well as uplink capabilities to support interactive participation.

Student employees are heavily utilized to assist in providing these services. Students working in this capacity are provided extensive training along with professional supervision which creates an environment that augments and enhances their academic experiences at UNI.

# Instructional Resources and Technology Services 

## http://www.uni.edu/coe/irts/

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.

The mission of the Instructional Resource and Technology Service facility is to provide students, faculty and in-service teachers/administrators with laboratories in which to examine and evaluate new curriculum resources. These resources include textbooks, professional materials, computer software, Macintosh and Windows microcomputers, NASA videos, and multimedia systems.

Instructional Resources and Technology Services consists of the Curriculum Laboratory, Macintosh Laboratory, Windows Laboratory, Technology Methods Lab, NASA Regional Educator Resource Center, and the Aviation Education Resource Center.

The Curriculum Laboratory is located in Room 222 of the Schindler Education Center. Materials available in the Curriculum Laboratory include $\mathrm{N} / \mathrm{K}-12$ 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.

Macintosh Laboratory in the College of Education is located in Schindler Education Center, Room 206 within IRTS (SEC 222). Faculty and students make use of this space for classes and open student computer use. Designed for instruction, this lab has 21 PowerMac 7600 workstations and is equipped with Sharp ED-E1000UB projector that displays data, video and laser disk images. In addition, the lab has the capacity to distribute satellite and cable television feeds. The computers use software that accommodates all standard productivity needs including spreadsheets, database management, and word processing. Student Computer fees have funded hardware, software, and furniture for this lab.

Windows Laboratory for the College of Education is housed in Schindler Education Center 123A. This instructional lab is equipped with 13 new Pentium computers each equipped with an internal zipdrive, $\mathrm{CD}-\mathrm{ROM}$, and multimedia speakers. The computers use software that accommodates all standard productivity needs including spreadsheets, database management, and word processing.

Both the Macintosh and Windows Laboratories are instructional labs in which classes are held. Reservations for individual users must be made at least one day in advance; a maximum of two hours may be reserved. Non-reserved computers are available on a walk-in basis when classes or workshops are not in session. A Sharp LCD projector allows for effective display of computer, laser disk, and video images.

The labs have software collections consisting of numerous $\mathrm{N} / \mathrm{K}-12$ grade non-networked educational packages. A directory of all programs is kept with the software in the cabinets in the lab. CD-ROM and laser discs are available for viewing and can be accessed from the circulation desk.

The goal of the Technology Methods Lab (TML) is to create and explore models for technology-rich K - 12 classrooms. This is an environment where pre-service and professional teachers can gain experience with the use of computing technology for teaching and learning. The lab is not a general purpose computing lab, but an in-depth learning lab for innovative computing applications in the UNI teacher education curriculum. Ten iMAC desktop computers are available as well
as one Macintosh G3 presentation station. A Macintosh G3 server provides AppleShare IP services over a 100 base network infrastructure. Currently, the lab owns more than 150 different software titles relevant to various curricular areas. This teaching lab is housed in Schindler Education Center, Room 127/128.

The NASA Regional Teacher Resource Center, in Schindler Education Center, Room 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.

A collection of aerospace materials resides in the Aviation Education Resource Center appropriate for N/K-12 grade classrooms, undergraduate university classes, and other instructional purposes. The AERC is a part of a network of over 70 centers throughout the country which serve as distribution sites for educational materials furnished by the PAA. This center is also located within IRTS Schindler Education Center, Room 222.

## 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 Center for Academic Achievement provides the University community with a variety of supportive services that will enhance students' academic achievement and persistence toward graduation. Staffed by fulltime professionals and partime student assistants, the Center focuses on the areas of math, writing, study/life skills, and community service involvement. The goal of the Center is to provide UNI students long-term, transferrable learning skills that can be used both in and out of the classroom. The Center also serves as a resource for faculty and staff as a support system for student learning.

The Math Lab provides individualized and small group instruction and practice in math and related disciplines.

The Writing Center offers individualized assistance to students in all aspects of the writing process within any academic discipline.

The course Academic Skills Achievement Program (200:180) provides University students of all majors the opportunity to provide a community service and tutor children/youth in a variety of educational settings.

The Center staff is also available to provide supplemental advisingtype services to students needing additional help.

The Educational Opportunity Center 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; and provide academic development workshops (study skills, test taking, writing and basic reading, and

## University Facilities and

 Educational Servicesmath skills). The Educational Opportunity Center program also coordinates job and college fairs, media promotion of education which provides education and career information for their communities. The Educational Opportunity Center program is located in the Center for Urban Education, 715 East Fourth Street, Waterloo, IA 50703.

## All services are free of charge.

The Educational Talent Search Program is an educational counseling service designed to assist 1,300 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. Students in 6th grade through age 18 are eligible to participate in the program. The Talent Search Program is located in the Center for Urban Education, 715 East Fourth Street, Waterloo, IA 50703.

The Ronald E. McNair Postbaccalaureate Achievement Program (McNair program) is designed to encourage low-income and first-generation undergraduate students, especially minorities, to consider careers in college teaching as well as to complete advanced degrees through effective preparation for doctoral study. Students who participate in the program are provided with academic enrichment programs that provide tutoring, academic counseling, summer internships, financial aid and admissions assistance, research opportunities, and a facul-ty-directed mentoring program.

The Student Support Services (SSS) Program was established at the University of Northern Iowa to provide services to low-income, first-generation, and disabled college students. Program services are designed to increase the retention and graduation rates of eligible students, and foster an institutional climate supportive of the success of low-income and first-generation college students and individuals with disabilities.

The primary goals of the UNI Student Support Services are:

- to identify and select project participants who meet eligibility requirements and demonstrate an academic need for project services in order to successfully pursue a post-secondary education program;
- to improve and/or maintain the academic performance level of each Student Support Services participant to equal and/or exceed the minimum level of performance required by the University for continued persistence and, ultimately, graduation from UNI; and
- to provide opportunities for participants to enhance their intellectual, cultural, and social development.
The Program offers a number of free services to achieve these goals, such as: academic advising and assistance with course selection; tutoring; career advising; assistance with educational and long-range planning; academic and cultural activities designed to enhance the students' personal and intellectual development; admission assistance for enrollment in graduate and professional programs.

The Student Support Services Program is located in the Student Services Center, Room 214.

The University of Northern lowa Center for Urban Education (UNI-CUE), located in the heart of the urban area of Waterloo, Iowa, is the University's community connection. As one of the components of the University's Educational Opportunity Program and Special Community Services (EOP/SCS), it represents the University's strong commitment to cultural diversity.

The Center for Urban Education's mission is to provide a positive environment for lifetime learning. Individuals may pursue and contin-

ue their educational goals and prepare for careers. UNI-CUE staff collaborate with other campus departments and community programs to match the center's resources with community needs. UNI-CUE fully embraces the concept of continuing and part-time education.

UNI-CUE houses a variety of programs including: Educational Talent Search (6th - 12th grade); Upward Bound (high school students); Educational Opportunity Center (19 years and up); and University courses for credit. Meeting the challenge of providing educational opportunities for people of all ages and races in a comfortable and confident learning situation, the center focuses on community needs. The various programs available benefit both the participants and University students who want to pursue field experience in the area of urban education.

The many opportunities provided by UNI-CUE's wide scope of programs show that UNI-CUE is maintaining and enhancing the University's commitment to life-long learning.

Classic Upward Bound and Upward Bound Math and Science are college preparatory programs designed to empower program participants with the academic skills and motivation necessary for students to be successful in high school and ultimately college.

Both programs serve students from low-income, first-generation families who demonstrate "potential for college" as measured by standardized tests, high school grades, and written recommendations from a school administrator, counselor, or teacher.

The Classic Upward Bound Program has two components, the academic year program and the summer enrichment program. During the academic year the Classic Upward Bound Program serves 75 students. This component focuses around the after-school Supplemental Instructional/Tutorials program where the students receive academic supportive services in their respective high schools. The academic year program also includes academic advising and counseling, career exploration, college tours, study skill development workshops, leadership conferences, and other activities.

During the summer component the Classic Upward Bound Program serves 60 students who spend six weeks of the summer at the University of Northern Iowa living in the dormitory. These students attend enrichment courses in Mathematics (algebra - pre-calculus), English (literature and composition), Science (biology - physics), Foreign Language (Spanish and French), Economics and Computer Science. In addition to their course work, students participate in cultural enrichment activities.

After a Classic Upward Bound student successfully graduates from high school, the Upward Bound graduate is enrolled in college classes in the University of Northern Iowa's summer session. All of these courses are transferrable to the college or university that the student will attend in the fall. These participants are housed in dormitories with other UNI college students during the summer.

The Upward Bound Math and Science Program serves 45 students from Iowa with a focus on Mathematics and Science. Like Classic Upward Bound, participants live in a college dorm at the University of Northern Iowa. Participants spend six weeks attending classes in Physics, Chemistry, Biology, Earth Science, Mathematics, Spanish, and Technical Writing. On weekends, participants are taken on field trips, where they see applications of Math and Science. During the Math and Science academic year follow-up, students are required to meet monthly with a mentor in their community and to complete two scientific projects.

The Classic Upward Bound Program accepts applications from students who have completed eighth grade or are currently enrolled in ninth, tenth, or eleventh grades in a Waterloo or Cedar Falls school. The Upward Bound Math and Science Program accepts applications from students from lowa in ninth or tenth grades who are interested in Math and Science.

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

Center for Academic Achievement
214 Student Services Center, UNI, Cedar Falls, IA 50614-0387
(319) 273-2346; Fax (319) 273-2982

Educational Opportunity Centers UNI-CUE
715 East Fourth Street, Waterloo, IA 50703;
(319) 234-6819

Educational Opportunity Program
200 Gilchrist, UNI, Cedar Falls, IA 50614-0004;
(319) 273-6205; Fax (319) 273-2634

Educational Talent Search
715 East Fourth Street, Waterloo, IA 50703;
(319) 234-6819

Ronald E. McNair Postbaccalaureate Achievement Program 214 Student Services Center, UNI, Cedar Falls, IA 50614-0387; (319) 273-2284; Fax (319) 273-2982

Student Support Services Program
214 Student Services Center, UNI, Cedar Falls, IA 50614-0388; (319) 273-2719

UNI-CUE
715 East Fourth Street, Waterloo, IA 50703; (319) 234-6819

Classic Upward Bound 715 East Fourth Street, Waterloo, IA 50703; (319) 234-6819

Upward Bound - Math and Science
214 Student Services Center, UNI, Cedar Falls, IA 50614-0388; (319) 273-2284

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 50614-0004, (319) 273-6205. For more information regarding our programs, visit our EOP World Wide Web home page http://www.uni.edu/vpaa/eop.html.

## 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 Roy Eblen 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.

## UNI Child Development Center

Students, faculty, and staff of the University are eligible to enroll their children ages 6 weeks to 5 years in the UNI Child Development Center. Located on the lower level of the Price Laboratory School, the Center is a licensed child care facility offering full-time care to a maximum of 53 children in four classrooms. The Center operates on the University calendar, offering both academic year and summer programming.

The Child Development Center also serves as a field experience site for students in Early Childhood Education, as well as a model program for educators across the state. Certified teachers, assisted by University students, staff the multi-age classrooms. Innovative curriculum and research are additional goals of the Center, as well as the development of teacher education curriculum and evaluation procedures.

## Facilities

## Department of Art

## Kamerick Art Building

The Kamerick Art Building, which houses all divisions of the Department of Art, was built in 1985. An award-winning structure that is based on an elegant modular plan, it is among the finest and most attractive art buildings in the country. Planned in consultation with one of the foremost authorities on health hazards in the arts, it is both functional and safe. Inside, more than 67,000 square feet is divided among studios, classrooms, administrative and faculty offices, Art Auditorium, ART/CAT Lab (computer lab), Visual Resources Center, Student Study Center, Art Store and the Gallery of Art. The building is connected to the Communication Arts Center and is in close proximity to the Strayer-Wood Theatre and Russell Music Hall. Together, these units define the geographic focus for the fine and performing arts on the UNI campus. The Kamerick Art Building also serves as the architectural end of the main east-west campus walk, terminating in the atrium of the building which leads to the bridge across Hudson Road to the UNIDome.

## UNI Art Gallery and UNI Permanent Art Collection

On the first floor inside the Kamerick Art Building is the UNI Gallery of Art, a large professional exhibition space in which six to eight major art exhibitions and a number of smaller auxiliary shows are presented each year. Major attractions include the annual exhibition of work by Art Faculty in the fall semester and a competitive student exhibition in the spring. The Gallery also oversees the UNI Permanent Art Collection, which includes works by such prominent artists as Berenice Abbott, Josef Albers, Eugéne Atget, Romare Bearden, John Buck, George Grosz, Philip Guston, and Jerry Uelsmann. These collections are complemented by a number of sculptural works across campus by such notable sculptors as Fletcher Benton, Walter Dusenberry, Dale Eldred and Roberta Lord, Janet Loftquist, and Cork Marcheschi. The UNI Gallery provides educational opportunities for students who would like to learn about arts administration and the operation of galleries through the university's Cooperative Education and Work Study Programs.

## Computer Lab

The College of Humanities and Fine Arts Computer Lab, referred to as the ART/CAT Lab, is located on the second floor of Kamerick Art Building, adjacent to the graphic design studios. Used by students and faculty in all the arts, it offers a rich and impressive array of high tech equipment and software.

## Art Store

The Department of Art has its own in-house store in Kamerick Art Building for the convenience of faculty and students. Supplies are ordered for all classes so that students are able to easily access the materials they need for their courses at UNI.

## Department of Communication Studies

## Lang Hall

UNI Performance Studies Studio in the newly renovated Lang Hall serves as both a teaching studio for performance studies classes and as a performance/rehearsal space for public performances based on social and cultural issues, oral histories, and traditional performances of literature. The 100 -seat flexible black-box style studio is equipped with full light and sound support.

## School of Music

## Russell Hall

Russell Hall has been the home of the School of Music since 1962. The building contains a 600 -seat auditorium, large choral and instrumental rehearsal halls, recording facilities, a music technology lab, office space for music faculty and staff, and over 40 practice rooms. In Spring of 2000, the School of Music expanded into the GallagherBluedorn Performing Arts Center, creating additional space for School of Music students, faculty, ensembles, and concert events.

## Department of Theatre

## The Strayer-Wood Theatre

Constructed in 1978, the Strayer-Wood Theatre was the first theatre built in Iowa with public funds, acknowledging the state's responsibility to serve the campus and the community through the arts. The building features two fully equipped theatre spaces: a 500 -seat convertible thrust/proscenium theatre and a black box (see "The Bertha Martin Theatre" below) as well as support spaces, an alternative performance space, classrooms and offices for the Department of Theatre and Theatre UNI. The university's student-performed plays, musicals and operas occur in the Strayer-Wood.

## The Bertha Martin Theatre

A part of the Strayer-Wood complex, the Bertha Martin Theatre is a 125 -seat flexible black-box style theatre with full light and sound support. Used primarily for public performances of plays and musicals, the theatre is also in heavy use as a rehearsal and training space for theatre classes. It was equipped and partially funded with a bequest from the students of Bertha Martin, the founder of the theatre program at the university.

## The Gallagher-Bluedorn Performing Arts Center

The new $\$ 23$ million, 100,000 square foot complex, containing three state-of-the-art concert halls, seating 1600,300 , and 125 respectively, opened in April 2000. The premier arts center in Northeast Iowa will be home to UNI music ensembles, the Waterloo-Cedar Falls Symphony, and a major new visiting artist series featuring internationally acclaimed music, theatre, and dance ensembles.

The Great Hall is an acoustically excellent, multi-purpose performance hall seating 1600 .

Two additional performance spaces include the Davis Recital Hall, a 300 -seat acoustically excellent recital hall appropriate for concerts, lectures, and other presentations. Jebe Hall seats 125 for concerts and lectures and features a new 38 rank pipe organ.

## Programs

## Department of Art

Visiting Artists and Scholars Program .- Each year, the Department of Art invites to the UNI campus a number of prominent artists, designers, art critics, and art historians for the purpose of lectures and workshops. Through seminars, receptions, and other gatherings, students have the opportunity to exchange ideas with these guests, with the purpose of learning directly about contemporary trends, critical issues, and career alternatives. Over the years, dozens of nationallyknown figures have participated in the Visiting Artists and Scholars Program.

Experiential Learning -- Art students have the opportunity to visit major exhibitions in nearby cities as part of their educational programs in the Department of Art. Past field trips have included visits to the Chicago Art Institute; the Nelson-Atkins Museum of Arts and the Kemper Museum of Contemporary Art in Kansas City; and SOFA (the Sculptural Objects and Functional Art exhibition) and the Chicago Design Show at the Merchandise Mart in Chicago. Students are also funded to attend national conferences affiliated with the student organizations in their emphasis areas: the National Art Educators Association, the National Council for Education in the Ceramic Arts, and the American Council on Design.

Annual High School Art Competition Day -- Each year, the Department of Art has a number of full-time, four-year scholarships to award to high school graduates planning on attending UNI. The scholarship portfolio reviews and applicant interviews take place early in April. Scholarship Competition Day also includes tours of Kamerick Art Building, opportunities to meet the faculty, and the chance to view the UNI Student Art Competition Exhibition. Lectures, demonstrations, and other special events provide a great deal of information about the programs and facilities of the Department of Art.

Magic Silver Photography Exhibition -- The Magic Silver Photography Exhibition, a national juried exhibition of photography held at UNI every two years, has, from its beginning, sought to provide a venue for the broadest range of photographic activity. A well-known figure in the world of photography is chosen to jury the exhibition, and $\$ 2,000$ in awards is allocated to the award recipients. The exhibition is a major event exhibited in the UNI Gallery of Art, with an accompanying catalogue.

Student Exhibition Opportunities -- Students are encouraged to exhibit their work in a variety of gallery spaces on campus, in addition to the UNI Gallery. These include The Dean's Triangle, the triangular area in the Communications Arts Center outside the office of the Dean of the College of Humanities and Fine Art; the Maucker Union Expansion Gallery; and the small experimental In Use Gallery in Kamerick Art Building. In addition, there are numerous exhibition cases on both floors of Kamerick Art Building for the exhibition of student work, as well as the Student Study Center.

## Department of Communication Studies

UNI Interpreters Theatre is a co-curricular program in the Department of Communication Studies that involves students from across campus. In this performance group, we create and perform small-scale productions based on social and cultural issues, oral histories, and traditional performances of literature. Some of the subjects we have covered in the past include eating disorders, children's literature, rural farm families, and romance readers. Students do not need to have
prior performance experience to participate. For further information, contact Dr. Karen Mitchell in the Department of Communication Studies at (319) 273-2640.
$U$ ' $n$ I Playback is an improvisational theatre group in which audience or group members tell stories from their lives and watch them enacted on the spot. Student actors, many of who have limited performance experience, "playback" these narratives through a variety of forms including scene work, palrs, fluid sculptures, and tableau stories. The group conducts workshops and public performances both off and on campus for a variety of organizations. For more information, contact Dr. Karen Mitchell in the Department of Communication Studies at (319) 273-2640.

Roaming Readers is a touring group of storytellers dedicated to promoting literacy among preschool and elementary-aged children. Students work independently to develop story hours and activities for after-school programs throughout the Cedar Falls/Waterloo community. For further information, contact Dr. Karen Mitchell in the Department of Communication Studies at (319) 273-2640.

## School of Music

Undergraduate Programs -- The School of Music at UNI enrolls approximately 300 students in various degree programs. These students participate in a wide array of course offerings including music theory, music history, performing ensembles, and applied lessons. Undergraduate course programs, include the core curriculum (General Education Program) plus courses specific to the selected major in music. These degree programs range from 124-150 credit hours for completion. Majors in Music: Bachelor of Arts; Bachelor of Music in Performance; Bachelor of Music in Composition-Theory; Bachelor of Music in Music Education (Choral/General Emphasis); Bachelor of Music in Music Education (Instrumental Emphasis); Bachelor of Music in Music Education (Jazz Emphasis). Minors in Music: Minor in Music; Minor in Jazz Studies.

Graduate Programs -- The UNI School of Music awards graduate degrees (Master of Arts and Master of Music) with seven areas of concentration: Composition, Conducting, Jazz Pedagogy, Keyboard Pedagogy, Music Education, Music History, and Performance. Each degree requires a minimum of thirty semester hours in graduate-level courses for degree completion. Majors in Music: Master of Arts; Master of Music in Performance; Master of Music in CompositionTheory, Master of Music in Music Education (On-Campus Program); Master of Music in Music Education (Off-Campus Program); Master of Music in Music History; Master of Music in Conducting; Master of Music in Jazz Pedagogy; Master of Music in Piano Performance and Pedagogy.


## Department of Theatre

In addition to a full curriculum of theatre classes, the Department of Theatre offers a full range of productions throughout the year. It normally produces drama, musicals, opera, theatre for young audiences, and original or experimental work.

Theatre UNI -- The production arm of the Department of Theatre, Theatre UNI produces a fully mounted 4-6 show season of work featuring student performers and technicians in the Strayer-Wood Theatre.

UNI Lyric Theatre -- A collaborative endeavor of the Department of Theatre and School of Music, UNI Lyric Theatre presents an opera or major musical production performed and built by students each year in the Strayer-Wood Theatre.

Sturgis Youth Theatre -- A collaborative endeavor of the Department of Theatre and the Cedar Falls Community Theatre, this program seeks to provide theatre education classes to and in the community and produce high quality theatre by and for young audiences off campus.

## The Gallagher-Bluedorn Performing Arts Center

Visiting Artists -- Over twenty internationally acclaimed artists are presented each season in UNI's Gallagher-Bluedorn Performing Arts Center. Spanning from Broadway to baroque to the blues, the center hosts performances as well as educational residencies, allowing UNI students to interact with world stars.

## Student Participation and Organizations in the Arts

## Department of Art

All UNI students and staff are invited to participate in the programs of the UNI Gallery and the Visiting Artists and Scholars Lecture Program, which are free and open to the public. Students are also encouraged to enter the competitive student exhibition held in the Gallery in the Spring, at which a large number of awards are presented.

ARTS UNI -- All students are invited to join ARTS UNI, the Department of Art student organization sponsored by the UNI student government, and open to all students interested in organizing art-related events at UNI.

SAEA -- The Student Art Education Association allows Art Education majors in the Department of Art to interact with the Art Education faculty, the Iowa Art Education Association, and the parent National Art Education Association; to allow networking with student teachers and alumni teaching in the field; and to sponsor art educationrelated events at UNI.

## Department of Communication Studies

UNI Performance Studies Program -- All university students and staff are invited to attend public performances in the UNI Performance Studies Studio, free of charge. Participation in productions is open to all UNI students and community members. Auditions are held at verious times throughout the academic year. Those interested in non-performance participation are also needed for technical support. For further information, contact Dr. Karen Mitchell in the Department of Communication Studies at (319) 273-2640.

## School of Music

Many music organizations and ensembles are open to all students by audition or application. Participation by non-music majors is encouraged. Credit is available to all who participate. Among the groups offered are: VOCAL -- Chamber Choir, Concert Chorale, UNI Lyric Theatre, UNI Singers, Varsity Men's Glee Club, Women's Chorus; INSTRUMENTAL -- Chamber Orchestra, Jazz Bands I, II, III, Panther Marching Band, Symphonic Band, Symphony Orchestra, Wind Symphony; SPECIALTY GROUPS -- Chamber Winds, Horn Choir, Jazz Combos, Northern Iowa Flute Choir, Percussion Ensemble, String Chamber Music, UNITUBA Ensemble, West African Drum Ensemble.

## Department of Theatre

All university students and staff are invited to attend the productions in the Strayer-Wood and Bertha Martin Theatres at a nominal charge for tickets. Various ticket packages and season subscription arrangements are available at the beginning of the academic year. Theatre productions are often used in other university classes as experimental learning opportunities.

All productions of Theatre UNI and UNI Lyric Theatre are open to participation by any enrolled UNI student. Auditions are held early in the semester or at times publicized on the theatre Web site (www.uni.edu/theatre) and in the campus press. Students interested in non- performance participation can make a contribution in scenery and properties construction, costume and wardrobe, makeup and hair, lights and audio production, front of house, stage management, and the like by contacting the theatre office (319) 273-6386 or the production's director.

UNISTA -- The UNI Student Theatre Association is housed within the Department of Theatre and is composed of any students involved in theatrical production on campus; they need not be theatre majors or minors. It functions as an independent production organization that produces several small budget plays or musicals each year in the Strayer-Wood Theatre or other venues around the campus on an application basis.

Theta Alpha Phi -- A National Honorary Fraternity for students participating in theatre at UNI. This organization performs service projects around the community and hosts an annual awards and honors banquet commemorating the previous year's season.


## The Gallagher-Bluedorn Performing Arts Center

The new GBPAC hosts over twenty internationally acclaimed artists each year, offering a culturally diverse palette of dance, theatre, jazz, classical, world music, spanning from STOMP and Penn \& Teller to the Moscow Ballet in its 1600 -seat main hall. Discounted tickets are available to UNI students. In addition, many visiting artists participate in educational residencies, interacting with UNI students in workshops and master classes. The center also provides experiential learning opportunities for UNI students in marketing, ticketing, stage production, and in-house management. For more information call (319) 2733660.

## Community Participation and Organizations in the Arts <br> Department of Art

The Department of Art takes its role as a proponent of the arts within the community very seriously. To this end, the Department actively interacts with community, statewide, and professional organizations, including the organization and presentation of a visiting artists and scholars lecture series that is free and open to both the University and the general communities; the presentation of joint projects and exhibitions between the UNI Gallery of Art and community organizations such as the Hearst Center for the Arts and Culture and the Waterloo Museum of Art; and faculty involvement in the organization of projects for community art organizations. In addition, faculty often serve as active members on boards, committees, and panels of local, state and national professional organizations.


## School of Music

UNI Suzuki Program -- The UNI Suzuki School, founded by Martha Holvik in 1976, offers individual and group lessons in violin, viola, cello, and flute based on the Suzuki philosophy to 190 northeast Iowa students age 3 to 18 . In addition, the school includes a clarinet class based on the Kinder-Klari method, several levels of theory classes, small ensemble sessions, and participation with visiting artists to the university community. The School provides annual individual and group recitals, and outreach performance opportunities; it also sponsors an advanced violin performance group "Fiddlesticks", the Northern Iowa Junior Orchestra (area string students in grades 6-8) and the Northern lowa Youth Orchestra (area string students in grades 912). The School is also part of a collaborative effort with the Center City for the Arts in Waterloo to bring quality violin instruction to students in the urban neighborhood. This project is called Music Works and provides year-round scholarships and instruments to these youths. There are opportunities for UNI students to teach and observe.

UNI New Horizons Band -- Started January of 1999, this group gives an opportunity for those 50 years of age or older to take group lessons and play in band. This includes beginners, those who may have previously played or those who currently play a band instrument. There are opportunities for UNI students to be involved in teaching group lessons to members.

Northern lowa Children's Choir -- The NICC was formed in January of 1997 in order to provide an additional choral experience for the students in the Cedar Valley area, to offer opportunities for the music education majors at UNI to work with children in a choral setting, and to serve as a model for teaching, conducting, and management for all UNI students. The members of NICC represent thirty different schools and range in age from those entering grade four to those completing grade eight. These students have been accepted into the choir through audition.

## Department of Theatre

S.T.A.G.E, Inc. -- UNI's oldest community support organization and one of the nation's first community support organizations for an academic theatre program, was founded in 1978 as a way for the local community to recognize and support the contributions made by the theatre and its programs. It has supported visiting artists, scholarships, and theatre trips to London, Minneapolis, and Chicago. Over the years, it has provided volunteers, works of art for the theatres, and generous hospitality to the theatre's patrons.

## The Gallagher-Bluedorn Performing Arts Center

Friends of the Gallagher-Bluedorn -- As the largest performing arts center in Northeast lowa, the GBPAC offers students, faculy and community residents the opportunity to support programming and educational programs with membership in the Friends of the GallagherBluedorn organization.

GBPAC Advisory Board -- The GBPAC is made up of an advisory board consisting of representatives from the community, UNI students, and faculty.

## Deqree Requirements

The University of Northern Iowa offers degrees at both the undergraduate and graduate levels. The graduate program is given in detail on pages 129 to 173. At the undergraduate level the University of Northern Iowa offers four traditional baccalaureate degrees: the Bachelor of Arts, the Bachelor of Fine Arts, the Bachelor of Music, and the Bachelor of Science. The external degree of Bachelor of Liberal Studies is also offered by UNI, and details of this unique degree program are given on page 48. 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, while at the University students are expected to make significant progress 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, and
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 s(he) decides to go on to graduate school, or for immediate employment. This emphasis on the academic program is not to exclude the contributions made by other parts of the 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 her/his 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 $s$ (he) lives. Such a program is desirable for all students whatever their future professions may be.

All credit hours stated in this catalog, for a program, assume students have appropriate preparatory course work. If a student's preparation is inadequate, additional course work may be necessary and may extend the length of the program and the time required to complete graduation requirements.

For those who plan to become teachers, additional work is required in professional education. This work seeks to enhance the student's interest in and commitment to teaching, to instill loyalty toward the profession, and to encourage the desire for continuous professional growth. The student acquires the skills, techniques, and understanding necessary to good teaching by studying current knowledge concerning the physical, emotional, and mental growth of children

and youth, the ways that they learn, and methods for guiding them to reach full potential. As part of her/his preparation, the student explores the mutual relationships and responsibilities of the teacher, the school, and the community.

The prospective teacher must also spend a significant part of her/his 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 and professional dispositions needed to present it effectively are essential aspects of successful teaching.

The teacher preparation program requires more hours to complete than many 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 completing the teacher preparation program are strongly encouraged to continue their education beyond the bachelor's degree.

## UNI Grad Pact -- Four-Year Graduation

The University of Northern Iowa, in response to a student body that is diverse in experiences, talents, expectations, and goals, has developed a "pact" that is designed to assist students in completing an undergraduate degree within four calendar years of their initial freshman enrollment. Students may follow many paths to graduation, with dozens of majors and concentrations offered through five undergraduate colleges. In addition, special programs can be tailored to the needs and interests students bring to the campus or discover once they are here. Students who wish to participate in the four-year graduation plan must average from 16 to 18 credits per semester (one quarter of the applicable credits for their major each year ) and will need to make academic and personal choices that will result in graduation within four years.

UNI's four-year graduation plan is called UN1 Grad Pact. Students who enroll as freshmen with well-defined interests, in "pact-approved" majors, and who want to complete their undergraduate study as expeditiously as possible, are assured of being able to enroll in courses allowing graduation in four calendar years. UNI Grad Pact is an agreement between the University and those students who choose to participate in the plan.

Students accept responsibility for monitoring their own progress toward degrees and for making choices that will allow them to graduate within four calendar years. The University is responsible for maintaining systems of advising so that students can track their progress, and agrees to provide the needed courses or their equivalents.

The University continues to encourage breadth and exploration as essential parts of a university education. UNI Grad Pact is designed to assure that students are carefully guided in their course choices while still benefiting from the rich educational opportunities offered by the University. Those students who conclude that UNI Grad Pact does not meet their academic and/or personal goals are encouraged to develop, in consultation with their academic advisor, a plan and timetable for completing the courses in their major that will allow them to achieve their individual academic, career, professional, and personal aspirations. Those students who do not participate in the plan will still benefit from descriptions of recommended patterns of progress toward degrees and enhanced advising services that will be available to all students.

## General Conditions

1. Students must enter the University as freshmen with appropriate high school preparation to begin a four-year graduation plan.
2. Students must sign up for UNI Grad Pact and declare their interest in a major that qualifies for the four-year plan.
3. Students are responsible for meeting deadlines and requirements of the pact. Therefore, students must regularly monitor their progress toward graduation. Such monitoring includes meeting each semester, in a timely manner prior to registration, with their academic advisor.
4. For courses required by the major and for graduation, students must accept any available section that can be accommodated in their course schedule and must register at their assigned registration time.
5. Students must be admitted and remain in good academic standing to the colleges and departments which offer their major.
6. Students may change majors and remain in the program if, at the time the student decides to make the change, he or she can still meet the requirements of the new major and graduate within the four calendar years. Students may enroll in an additional major or in programs leading to additional licensing and certification, and remain in UNI Grad Pact, if they can complete these additional requirements and those of their first major within the four calendar years. Students must see their academic advisor in a timely manner in order to accomplish these changes or additions.
7. Students must accept responsibility for timely annual application for all necessary financial assistance.
8. Students must complete a minimum of one quarter of the applicable credits for their major each year (including summer sessions).
9. If, after working with their advisor, it appears that graduation may be delayed due to unavailability of a course, students must notify the Office of the Provost, Associate Vice President for Academic Affairs, in writing prior to the beginning of classes in the term in which the course would be needed.
If the student meets all the conditions of the four-year plan but is unable to graduate due to the unavailability of a course, the University will offer one of the following:
A. Allow the student to graduate in four years by substituting a different course or an independent study assignment, as determined by the department and the college offering the student's major.
B. Allow the student to graduate in four years by waiving the requirement to be met by the unavailable course, as determined by the department and college offering the student's major.
C. Allow the unavailability of a course to delay the student from graduating in four years, in which case the University will waive UNI tuition and mandatory fees for this course in order for the student to graduate within the next year.
These procedures will be the exclusive remedy for the four-year plan (UNI Grad Pact) agreement. The University is under no obligation to provide one of these adjustments unless the student submits a written request for an accommodation to the Provost prior to the beginning of classes in the last term of the student's four-year plan.

## 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 154 semester hours.
On this program students are prepared as:

1. Secondary teachers of art, business education, communications, geography, English, foreign languages, health, industrial arts, mathematics, music, physical education, science, social science subjects (economics, history, etc.), and speech.
2. Special teachers of art, industrial arts, music, physical education, special education, and speech correction.
3. Early childhood and elementary teachers, kindergarten through sixth grade.
4. Middle School/Junior High School teachers in various areas of instruction.
B. Bachelor of Arts -- $\mathbf{1 2 4}$ semester hours

On this program students are prepared in the following areas:

1. Liberal Arts -- art, business, communications, computer science, criminology, design, family and consumer sciences, English, foreign language, industrial arts, mathematics, music, philosophy, physical education, psychology, speech, social science, social work, science, and theatre.
2. 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 34-45 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 a maximum of 65 semester hours may be accepted from a two-year institution. The 34-45 semester hours of transfer credit for R.N. certification is considered part of this limit. Thus, a student who has earned more than 20 semester hours of other two-year college credit may not be able to use all of the nursing credits for graduation requirements. Such individuals should consult the Director of Admissions concerning the application of this requirement in her/his situation.
b. Eleven 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 social science. Specifically, the 11 hours would be dispersed in the following way:
Category III. Natural Science and Technology
(a) Life Sciences -- 3 hrs .
(b) Physical Sciences -- 3 hrs .

Category IV. Social Science
(a) Group A (1 course) -- 2-3 hrs.
(b) Group B (1 course) -- 2-3 hrs.

1 course from Group $A, B$, or $C$ is required.
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.
3. 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 Biology 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 complete programs in Medicine, Dentistry, Osteopathy, Podiatry, Law, and Engineering. These program guides may be requested from the Admissions Office.
2. Physics/Engineering Dual-Degree Program --

Qualified students may pursue a dual degree program leading to a B.S. Applied Physics degree from the University of Northern lowa and a B.S. Engineering degree from Iowa State University or the University of lowa. For details, please refer to the section of this catalog under Physics, Bachelor of Science Degree Programs, Applied Physics/Engineering Dual-Degree Major.
3. 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 coordinated 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. Cooperative Nursing Program with Allen College. The University of Northern Iowa offers the general education component of the Bachelor of Science in Nursing Degree offered by Allen College.
c. Three-year Program in Medical Technology. The University of Northern Iowa cooperates with St. Luke's Hospital in Cedar Rapids and University of Iowa Medical School in Iowa City, to offer the first three years of work; St. Luke's Hospital in Cedar Rapids and University of Iowa Medical School in Iowa City offer the fourth year.
d. 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.
A student who expects to transfer to another institution should declare her/his 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 her/his advisor for the first time, the student should secure a current copy of the catalog of the school to which the transfer is planned.
4. 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 leadership, oral and written communication skills, survival skills, 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, ethics, management of military organizations and resources, as well as military law. The Department of the Army will pay all contracted cadets up to $\$ 2,000$ 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. The most common methods are prior military service, enlisted basic training, or successful completion of a six-week summer ROTC basic camp.
c. The Simultaneous Membership Program. The Simultaneous Membership Program (SMP) allows contracted cadets to be members of the lowa 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 $\$ 2,000$ a year subsistence allowance from the ROTC Advanced Course, and 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 fouryear scholarships are available. They cover up to $\$ 5,000$ per year toward tuition and required educational fees at UNI, and provide $\$ 225$ per semester for textbooks, supplies, and equipment.

Army ROTC scholarships also provide a subsistence allowance of up to $\$ 2,000$ 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 21.
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 103.
f. Additional Information. Additional information regarding the U.S. Army ROTC program is contained under the section titled Military Science, on page 103. The specific courses offered by the Department of Military Science are listed under the Department of Military Science on page 176. For additional information, write to the University of Northern Iowa, Department of Military Science, Cedar Falls, IA 50614-0142; come in person to West Gym (Room 203), UNI campus; or call the Student Advisor at (319) 273-6178 or (319) 273-6337. Please visit our website http://www.uni.edw/armyrotc.

## 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, Electives . .77

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 her/his electives a course in the literature of some language or languages other than English (in translation if not in the original).

## Majors and Minors

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

## Majors

Accounting
American Studies
Anthropology
Art
Asian Studies
Athletic Training
Biology
Biology: Ecology and Systematics Emphasis
Biology: Biomedical Emphasis
Biology: Environmental Emphasis
Biology: Microbiology Emphasis
Biotechnology
Chemistry
Chemistry-Marketing
Communication
Communication/Electronic Media
Communication/Public Relations
Communicative Disorders
Computer Information Systems
Computer Science
Criminology
Earth Science
Earth Science: Interpretive Naturalist Emphasis
Economics
English
European Studies
Family Services
Finance
French
General Studies
General Studies for Registered Nurses
Geography
Geography: Environmental Emphasis
Geology
Geology: Environmental Science Emphasis

## German

Graphic Communications
Health Promotion
History
Humanities
Individual Studies
Inter-American Studies
Interior Design
Leisure Services
Management
Management Information Systems
Marketing
Mathematics
Mathematics--Applied
Mathematics--Statistics and Actuarial Science
Modern Languages Dual Major
Music
Philosophy
Physical Education
Physics
Physics: Environmental Emphasis
Political Communication
Political Science
Psychology
Public Administration
Real Estate
Russian
Russian and East European Studies
Social Work
Sociology
Spanish
Study of Religion
Teaching English to Speakers of
Other Languages (TESOL)
Technology Management
Textile and Apparel (TAPP)
Theatre

## Minors

Accounting
Accounting-Business
American Ethnic Studies
Anthropology
Art
Asian Studies
Astronomy
Biology
Business Communication
Chemistry
Coaching
Communication
Communication/Journalism
Communication/Public Relations
Comparative Literature
Computer Information Systems
Computer Science
Criminology
Dance
Design, Family and Consumer Sciences
Earth Science
Economics
Educational Technology
Electrical and Electronics Technology (EET)
English
Environmental Studies
Ethics
Family Studies
Financial Services
Financial Services-Business
French
General Business Concepts
General Industry and Technology
Geography
Geology
German

Graphic Communications<br>Health Promotion<br>History<br>Humanities<br>Inter-American Studies<br>International Affairs<br>Jazz Studies<br>Leadership Studies<br>Leisure Services<br>Marketing<br>Mathematics<br>Media<br>Meteorology<br>Military Science<br>Music<br>Natural History Interpretation<br>Philosophy<br>Physics<br>Political Science<br>Portuguese<br>Psychology<br>Real Estate<br>Real Estate-Business<br>Religion<br>Russian<br>Russian and East European Studies<br>Sociology<br>Spanish<br>Statistics and Actuarial Science<br>Teaching English to Speakers of<br>Other Languages (TESOL)<br>Textile and Apparel<br>Theatre<br>Women's Studies<br>Writing<br>Youth Services Administration

## 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.

Note: Teaching majors entering UNI in. Fall 1995 or later must select courses from both physical and biological sciences to complete Category III in the General Education program. The Iowa Department of Education requires students to complete this course work in order to obtain a teaching license.
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 ............................................. . 51
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 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 31-33
Concentration area and electives ......................... . 17-29
C. Preparation for teaching in early childhood education (pre-K through grade 3).

Semester Hours
General education . . . . . . . . . . . . . . . . . . . . . . . . . . . . Minimum 47
Professional Education Requirement . . . . . . . . . . . . . . . . . . . . . 33
Major requirements . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 37
Other requirements and electives ................................ 13

## Professional Education

## Requirements

All candidates for the Bachelor of Arts--Teaching Program are required to take the courses in professional education and a minimum of one departmental methods course. In addition, all candidates must be admitted to the Teacher Education Program. Admission procedures are initiated at a required orientation session during Level I of the Professional Education sequence.

Semester Hours
220:150 Meeting the Needs of Diverse Learners
in Classrooms ........................................... . . 2
240:020 Educational Media or
240:031 Educational Media and Classroom Computing .... 2-3
Levell
200:017 Field Experience: Exploring Teaching . . . . . . . . . . . . . . 1
200:030 Dynamics of Human Development . . . . . . . . . . . . . . . . 3

## Level II

(Before enrolling in Level II, the student must be at least provisionally admitted to the Teacher Education Program.)
200:128 Field Experience: Teacher as a Change Agent ........ 1
200:148 Learning and Instruction in Classroom Contexts . . . . . 3
250:150 Classroom Evaluation Instruments .................... . . 2
Level III
(Before enrolling in Level III, the student must be fully
admitted to the Teacher Education Program.)
260:119 Schools and American Society . . . . . . . . . . . . . . . . . . . . . 3

## Student Teaching

(Before enrolling in Student Teaching, the student must be fully admitted to the Teacher Education Program.)
280:070 Human Relations: Awareness and Applications Corequisite - 280:1xx
280:1xx Student Teaching (Course number denotes area in which experience is gained: $280: 132,134,135,137$, 138, 139, 140, 250) Corequisite - 280:070 12
32-33

## Professional Education Waivers/Substitutions

1. Industrial Technology majors will be waived from 240:020. A student changing majors (from Industrial Technology) would be required to complete 240:020.
2. Physical Education majors may substitute $420: 174$ for $250: 150$. A Physical Education major carrying an academic minor or changing majors (from Physical Education) would be required to complete 250:150.
3. Physical Education majors will be waived from 220:150. A Physical Education major carrying an academic minor or changing majors (from Physical Education) must complete 220:150.
4. Music Education majors will be waived from $250: 150$. A Music Education major carrying an academic minor or changing majors (from Music Education) must complete 250:150.
5. Music Education majors will be waived from 240:020. A Music Education major carrying an academic minor or changing majors (from Music Education) must complete 240:020.
6. Special Education majors will be waived from $220: 150$.
7. Art Education majors will be waived from 240:020.
8. Health Education, Special Education, and Music Education majors will be waived from 200:086.

## Admission to the Teacher Education Program

Application for Admission to the Teacher Education Program must be made before enrolling in the Level II courses. At that time the student must also fulfill any additional requirements as prescribed by the Council on Teacher Education.
To be admitted to the Teacher Education Program, a student must:

1. Declare a major;
2. Have earned at least 24 semester hours of credit;
3. Have earned at least a 2.50 grade index in all course work;
4. File the Application for Admission to Teacher Education in 159A Schindler Education Center;
5. Have completed the speech and hearing evaluation;
6. Have completed College Reading and Writing (620:005) or the equivalent;
7. Have completed Oral Communication (48C:001) or the equivalent;
8. Passed the required basic skills test.

In approving admission, the University gives special consideration to the scholarship, health, character, personality, and leadership potential of the applicant for a teaching curriculum. 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.

Information concerning fee payments for tests, registration procedures, and test dates are available by contacting Academic Advising Services, Student Services Center 125, UNI, (319) 273-6023 or the Director of Teacher Education, 159A Schindler Education Center, UNI, (319) 273-2265.

## Field and Clinical Experiences

At the University of Northern Iowa 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 field experiences and participation, with supervised observations, that culminate in the actual period of student teaching in the senior year.

Supervised observations give the student an opportunity to see the teaching-learning operation without becoming involved in the ongoing 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 field and clinical 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

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) semester hours of credit for student teaching, evaluated on a credit/no-credit/withdrawal system, and three (3) semester hours of graded credit for Human Relations (see page 45.) 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 280:070 concurrently with student teaching. Students who elect to student teach out-of-state or internationally are required to take Human Relations prior to the student teaching semester.

To be admitted to student teaching, a student must demonstrate:
a. FULL admission to the teacher education program;
b. a cumulative GPA of $\mathbf{2 . 5 0}$ or higher on work at all colleges and universities;
c. a UNI GPA of $\mathbf{2 . 5 0}$ or higher;
d. a 2.50 GPA in the academic major or department approval;
e. a GPA of $\mathbf{2 . 5 0}$ or higher in courses completed in the Professional Educational Program; and
f. completion of all methods courses listed as prerequisites for student teaching with a grade of C (2.00) or higher as well as other departmental requirements.
Final student teacher assignment is based upon fulfillment of all established requirements and availability of placement.

## Exit Requirements

To be recommended for teaching licensure in Iowa, a student who graduates from the UNI Teacher Education Program must satisfactorily complete the major and/or minor and the teacher education requirements, complete course work in both the biological and physical sciences, have an overall GPA of 2.50 and a cumulative UNI GPA of 2.50, and pass additional 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, as well as the Pre-Professional Skills Tests (PPST), are now required to be taken by teacher education graduates to meet licensure requirements in some states. Neither is required in the State of Iowa.) Information concerning fee payments for tests, registration procedures, and test dates are available by contacting Academic Advising Services, Student Services Center 125, UNI (319) 273-6023.

For additional information on teacher licensure, see page 52.

## Majors and Minors -- Teaching

Elementary majors may choose either a University approved endorsement minor or a 24-hour area of concentration (see pages 76-77 for possible choices).

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 chosen major. Even if not required, a student may select a second major or one or more minors.

Approved majors and minors will be chosen from the fields listed below.

## Majors

Anthropology
Art Education
Biology
Business
Chemistry
Communication -- Theatre
Early Childhood Education
Earth Science
Elementary Education
English
French
Geography
German
Health Education
History
Mathematics
Middle Level Education
Modern Languages Dual Major
Physical Education

## Minors

Anthropology
Art
Art (K-6)
Basic Science (K-6)
Biology
Business
Chemistry
Communication -- Theatre
Communication -- Theatre (K-6)
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

Physics
Political Science
Psychology
Science:
Environmental/Conservation Education Emphasis
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

History<br>History (K-6)<br>Library Media Specialist<br>Mathematics<br>Mathematics (K-6)<br>Modern Languages (K-6)<br>Physical Education--Elementary Teaching<br>Physics<br>Political Science<br>Psychology<br>Reading Education (K-6)<br>Russian<br>Secondary Reading<br>Social Studies (K-6)<br>Sociology<br>Spanish<br>Special Education<br>Teaching English to Speakers of<br>Other Languages (TESOL)<br>Technology Education

## Bachelor of Fine Arts Degree

The program available under this degree is a major in Art, with an emphasis in any one of eight studio areas, offered by the Department of Art. A minimum total of 130 semester hours is required for the degree. The BFA degree program is designed to provide professional career training in the following studio emphases: ceramics; drawing; graphic design; jewelry/metals; painting; photography; printmaking; and sculpture.

## Bachelor of Fine Arts Degree Curricula

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

General Education47

Major Requirements ..... 77
General Electives ..... 6

The Bachelor of Fine Arts degree is generally recognized as the professional undergraduate degree in the visual arts. 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 64, for detailed information about this program.)

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

## Major

Art

## 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 licensure to teach music in grades K-6 and 7-12. The Performance major with emphases in voice, piano, organ and band-orchestral instruments, and the Composition-Theory major are professional programs designed to prepare students for careers as artists-performers or composers, or for entrance to graduate schools where further excellence in a performance area might be pursued. Students earning the Bachelor of Music degree are prepared as performers, college teachers, and in all areas where a high degree of music or performing skill is required.

## Bachelor of Music Degree Curricula

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

Semester Hours
General Education .44
Music requirements (applied, theory, history and literature, conducting, ensembles, recital, composition, electives) . ....66-82 General electives/professional sequence* . . . . . . . . . . . . . . . .0-34 130*
The following majors are offered on this degree program: Composition-Theory -- 79-82 hours
Music Education (Teaching) -- 66 or 76 hours
Performance (Voice, Piano, Organ, Band-Orchestral Instruments) -- 80 hours
*Music Education majors must also complete the Professional Education Requirements (see page 45). The minimum semester-hour requirements vary with the specialization chosen. The Music Education major carries licensure to teach in grades K-6 and 7-12. (A course in human relations is also required for licensure to teach.)

The approval of the faculty, and the Associate 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 school and wish to pursue a music major curriculum must 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. In addition to the entrance audition required of all students who intend to major in music, transfer students are required to take a placement exam in music theory or start with level 1 in Theory, Aural Training, and Sight Singing. The music faculty will evaluate the performance in these areas to determine School of Music admissability for each transfer student.

Participation in a performance organization such as band, chorus, orchestra, and other ensembles, is required of all degree students every semester in residence.
(See the School of Music, page 107, for additional information.)

## Majors

Composition-Theory
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 postbaccalaureate study in graduate or professional schools.

Majors for the Bachelor of Science degree include: Applied Physics, Biology, Chemistry, Computer Science, Construction Management, Dietetics, Electro-Mechanical Systems, Geology, Manufacturing Technology, and Physics.

Requirements include:

1. A minimum of 56 hours in the subject and cognate areas with:
a. at least 36 hours in the subject area;
b. at least one 100 -level course in cognate areas.
2. The completion of undergraduate research or internship carrying 1-2 semester hours of credit applicable to either the subject or cognate area(s). This project should 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 the 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
Computer Science
Construction Management

## Dietetics

Electro-Mechanical Systems Geology
Manufacturing Technology Physics

## Bachelor of Liberal Studies Degree

The Bachelor of Liberal Studies (BLS) Program is offered by the three Iowa Regents' Universities: University of Northern Iowa, Iowa State University, and the University of lowa. The purpose of the BLS is to offer educational opportunities to those students who are unable to attend college as full-time, on-campus students. Students may complete the degree at their own pace without attending on-campus courses. Students often use correspondence study and other distance learning opportunities to earn credit.

Admission to the Program: Each student entering the program must have earned:

1. an Associate of Arts degree from an accredited, two-year college, or at least 62 semester hours of college credit acceptable toward graduation at UNI, and
2. a minimum 2.00 grade point average.

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

1. 45 semester 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 Northern Iowa upper-level courses are those numbered 100 and above.
2. at least 32 hours of credit earned in the junior and/or senior years in courses at UNI. This total may include nonresidence credit.
General Education Requirements: Students must meet the basic undergraduate core requirements as specified and determined by the policies of the degree-granting institution.

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 of credit in each of the three (3) areas selected from the following list. Of the total 36 semester hours of credit applied to fulfill this requirement, 24 semester hours must be in upper-level credits as defined by the institution in which the courses are taken, with at least 6 semester 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, Social Work, Education)
Information and details regarding admission to the BLS program, evaluation of prior academic work, program advising, and declaration of major may be obtained from Continuing Education Credit Programs, SHC 132, Cedar Falls, IA 50614-0223. Students may also call the BLS advisor toll free at 1-800-648-3864 or (319) 273-7740. Students are also encouraged to visit the BLS website
http://www.uni.edw/contined/cp/degreeprogs/ugraddegrees/bsdegree.html

## Change of Degree Program

Students who change from one degree program to another 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

As stated in the University of Northern Iowa mission statement, the University's undergraduate programs are founded on a strong liberal arts curriculum. The liberal arts experience in General Education exposes students to the broad areas of knowledge embodied in the whole of the environment and liberates students to further develop the knowledge, skills and values necessary to live thoughtful, creative and productive lives. The American Association of Colleges and Universities' "Statement on Liberal Learning" reflects the purposes of UNI's General Education program:

A truly liberal education is one that prepares us to live responsible, productive, and creative lives in a dramatically changing world. It is an education that fosters a well-grounded intellectual resilience, a disposition toward lifelong learning, and an acceptance of responsibility for the ethical consequences of our ideas and actions. Liberal education requires that we understand the foundations of knowledge and inquiry about nature, culture and society; that we master core skills of perception, analysis, and expression; that we cultivate a respect for truth; that we recognize the importance of historical and cultural context; and that we explore connections among formal learning, citizenship, and service to our communities.

We experience the benefits of liberal learning by pursuing intellectual work that is honest, challenging, and significant, and by preparing ourselves to use knowledge and power in responsible ways. Liberal learning is not confined to particular fields of study. What matters in liberal education is substantial content, rigorous methodology and an active engagement with the societal, ethical, and practical implications of our learning. The spirit and value of liberal learning are equally relevant to all forms of higher education and to all students.

Because liberal learning aims to free us from the constraints of ignorance, sectarianism, and short-sightedness, it prizes curiosity and seeks to expand the boundaries of human knowledge. By its nature, therefore, liberal learning is global and pluralistic. It embraces the diversity of ideas and experiences that characterize the social, natural, and intellectual world. To acknowledge such diversity in all its forms is both an intellectual commitment and a social responsibility, for nothing less will equip us to understand our world and to pursue fruitful lives.

The ability to think, to learn, and to express oneself both rigorously and creatively, the capacity to understand ideas and issues in context, the commitment to live in society, and the yearning for truth are fundamental features of our humanity. In centering education upon these qualities, liberal learning is society's best investment in our shared future.
(The Association of American Colleges and Universities' "Statement on Liberal Learning," 1999)

## Requirements of the General Education Program:

Summary:

| Category 1: | Civilizations and Cultures <br> Category 2: <br> Fine Arts, Literature, Philosophy <br> and Religion | 11 hours |
| :--- | :--- | ---: |
| Category 3: | Natural Science and Technology | 6 hours |
| Category 4: | Social Science | 9 hours |
| Category 5: | Communication Essentials | 9 hours |
| Category 6: | 9 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
Courses in this category promote an understanding of Western and Non-Western cultures and civilizations from ancient times to the present through historical accounts, literatures, philosophies, religions, and fine arts. Using methods of critical inquiry, students explore aspects of human nature, the shaping of thoughts and values, and their interrelations.
A. Humanities (8 hours required)

680:021 Humanities I (4 hrs.)
680:022 Humanities II (4 hrs.)
B. Non-Western Cultures ( 3 hours required)*

Prerequisites: Completion of 680:021 (Humanities I) and 680:022 (Humanities II).
680:121 Russia/Soviet Union (3 hrs.)
680:122 Japan (3 hrs.)
680:123 Latin America (3 hrs.)
680:124 China (3 hrs.)
680:125 India (3 hrs.)
680:127 Middle East (3 hrs.)
680:128 Africa (3 hrs.)
680:132/990:132 Native North America (3 hrs.)
680:137/990:137 Native Central and South America (3 hrs.)

## Category 2: Fine Arts, Literature, Philosophy

 and Rellgion6 hours
Courses in this category explore the evolution of human ideas and beliefs as well as forms of aesthetic manifestation. Analysis of philosophical and literary texts, musical works, visual and performance arts nourish an understanding of diverse forms of human expression and promote the development of heightened aesthetic and ethical sensibility.
A. Fine Arts (3 hours required)*

420:034 Survey of Dance History (3 hrs.)
490:002 Theatrical Arts and Society ( 3 hrs .)
520:020 Our Musical Heritage (3 hrs.)
520:030 Music of Our Time ( 3 hrs .)
600:002 Visual Inventions (3 hrs.)
600:004 Visual Perceptions ( 3 hrs .)
*590:011 may substitute for the Fine Arts requirement for BME music majors.
B. Literature, Philosophy, or Religion (3 hours required)

620:031 Introduction to Literature ( 3 hrs .)
640:024 Religions of the World (3 hrs.)
650:021 Philosophy: Basic Questions ( 3 hrs .)
720:031 Introduction to Francophone Literature in Translation (3 hrs.)

740:031 Introduction to German Literature in Translation (3 hrs.)
770:031 Introduction to Russian Literature in Translation (3 hrs.)
790:031 Introduction to Portuguese and Hispanic Literatures in Translation ( 3 hrs .)

## Category 3: Natural Science and Technology

Courses in natural science promote an understanding of science as a human process that investigates matter and energy acting within complex organic and inorganic systems. Fundamental principles of both physical and life sciences are included. A capstone course demonstrates the relationships among science, technology, society, and the natural environment.
(Students are required to take a course with a scheduled laboratory from either Life Sciences or Physical Sciences 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 Life or Physical Sciences.) Teaching majors entering UNI in Fall 1995 or later must select courses from both physical and biological sciences to complete Category III in the General Education program. The lowa Department of Education requires students to complete this course work in order to obtain a teaching license.
A. Llfe Sciences ( 3 or 4 hours required)

For all courses listed under Life Sciences and Physical Sciences, with the exception of 990:010, a student must have satisfied University entrance requirements in English and Mathematics. (College of Natural Science majors may meet the Life Sciences requirement by completing 840:051 or 840:052.)
820:032*B Activity-Based Life Science (4 hrs.)
840:012B Life: The Natural World (3 hrs.)
840:013* Life: The Natural World - Lab (1 hr.)
840:014B Life: Continuity and Change ( 3 hrs .)
840:015* Life: Continuity and Change - Lab (1 hr.)
990:010B Human Origins ( 3 hrs .)

## * Lab Course

## B Biological Sciences requirement

B. Physical Sciences ( 3 or 4 hours required)

For all courses listed under Life Sciences and Physical Sciences, with the exception of 990:010, a student must have satisfied University entrance requirements in English and Mathematics. (College of Natural Sciences majors may meet the Physical Sciences requirement by completing $860: 044$, $\mathbf{8 6 0 : 0 7 0}, 880: 054$, or $880: 130$. Design, Family and Consumer Sciences majors may meet the Physical Sciences requirement by completing 860:044 or 860:061.)
820:031*P Activity-Based Physical Science (4 hrs.)
860:010**P Principles of Chemistry ( $3-4$ hrs.)
870:010**P Astronomy ( $3-4$ hrs.)
870:021P Elements of Weather ( 3 hrs .)
870:031*P Physical Geology (4 hrs.)
880:011*P Conceptual Physics (4 hrs.)
880:012P Physics in Everyday Life (3 hrs.)
970:026**P Physical Geography (3 hrs.)

- Lab Course
** Lab Course if 4-hour option elected
P Physical Sciences requirement
C. Capstone ( 2 hours required)

Prerequisite: Completion of both Life Sciences and Physical Sciences requirements and junior or senior standing.
820:140 Environment, Technology, and Society (2 hrs.)

## Category 4: Social Science

9 hours
Courses in this category introduce students to the description and analysis of human behavior from different perspectives, ranging from the societal and cultural to the institutional, individual and topical viewpoints. Students are exposed to the diversity of sociocultural systems created by human beings during their evolutionary development, and examine the manner in which behavior is influenced by environmental, sociocultural, psychological, and historical processes.

Required: one course from group $A$, one course from group $B$, and one course from group A, B, or C. (Students cannot count both 970:010 and 970:040; or both 940:015 and 940:026 toward general education.)
A. Group A Sociocultural and Historical Perspectives

900:023 American Civilization (3 hrs.)
970:010 Human Geography ( 3 hrs .)
970:040 World Geography ( 3 hrs .)
980:058 Principles of Sociology ( 3 hrs .)
990:011 Culture, Nature, and Society ( 3 hrs .)
B. Group B Individual and Institutional Perspectives

310:053 Human Identity and Relationships (3 hrs.)
400:008 Introduction to Psychology ( 3 hrs.)
920:024* Introduction to Economics (3 hrs.)
940:015 American Government in a Comparative Perspective (3 hrs.)
940:026 World Politics ( 3 hrs .)
*Satisfactory completion of both 920:053 and 920:054 by all non-business majors and Business teaching majors, through UNI or transfer, may substitute for 920:024.
C. Group C Topical Perspectives

450:041/900:041 Social Welfare: A World View (3 hrs.)
450:045/900:045/980:045 American Racial and Ethnic Minorities ( 3 hrs .)
900:020 Women, Men, and Society (3 hrs.)
900:080 Conflict and Social Reconstruction (3 hrs.)
900:085 The Nature of Social Issues (3 hrs.)
900:090 Children and Youth: Issues and Controversies ( 3 hrs .)
940:020 Contemporary Political Problems
980:060 Social Problems
Category 5: Communication Essentials 9 hours*
Courses in this category are designed to enhance the ability of individuals and groups to effectively communicate through writing and reading, speaking and listening, and quantitative reasoning.
A. Writing and Reading ( 3 hours required)*

620:005 College Reading and Writing ( 3 hrs .)
620:015 Expository Writing (3 hrs.)
620:034 Critical Writing About Literature ( 3 hrs .)
B. Speaking and Listening (3 hours required)**

48C:001 Oral Communication ( 3 hrs .)
C. Quantitative Techniques and Understanding ( 3 hours required) ***
800:023 Mathematics in Decision Making (3 hrs.)
800:072 Introduction to Statistical Methods (3 hrs.)
800:092 Introduction to Mathematical Modeling (3 hrs.)

## Category 6: Personal Wellness

3 hours
Personal wellness promotes the acquisition of knowledge and the development of skills and attitudes necessary for implementing positive health-related decisions.

440:010 Personal Wellness ( 3 hrs .)
TOTAL
47 hours
*620:005 recommended for students with ACT English and Reading scores of 18-26;
620:015 has prerequisite of combined ACT English and Reading scores of 54 or higher;
620:034 recommended for English majors and minors with prerequisite of ACT English and Reading scores of 54 or higher.
**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 800:072 or 800:092 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, 800:092 Introduction to Mathematical Modeling.

Those not satisfying these criteria will be placed in 800:072 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 an approved articulation agreement, to meet most General Education requirements.
8. The General Education program requirements apply to all undergraduate degree programs.
9. Regents Articulation Agreement:

The University of Northern Iowa, the College of Liberal Arts at the University of Iowa, and the College of Liberal Arts and Sciences at Iowa State University agree to accept fulfillment of the general education program at any one of them as equivalent to completion of general education requirements at another, with the following stipulations:
a. This agreement does not apply to those students who transfer without having fully completed the general education program prior to transfer.
b. Validation of fulfillment of general education requirements requires that a student transferring must have met the transfer requirements of the receiving institution with respect to semester hours and grade-point average.
c. When a foreign language proficiency, a capstone course, and/or a course in foreign culture is required, whether within or in addition to the general education program, a student may meet this requirement at either institution regardless of the institution whose general education requirements the student fulfills.
d. General education validation is the responsibility of the student transferring and will be completed upon request to the Registrar of the institution from which the student is transferring.

## 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. For further information concerning requirements for these certificates see pages 123-128, or consult with 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 Communication Studies

Certificate in Public Speaking
Graduate Certificate in Corporate Communication
Department of Computer Science
Computer Applications Certificate
Department of Design, Family and Consumer Sciences
Certificate Program in Long Term Care
Department of Educational Leadership, Counseling, and Postsecondary Education
Advanced Studies Certificate in Educational Leadership
Department of Geography
Certificate in Cartography and Geographic Information Systems (GIS)
School of Health, Physical Education, and Leisure Services
Global Health Certificate
Outdoor Recreation Certificate
Tourism Certificate (jointly offered by COBA/COE, with jurisdiction through HPELS)
Youth Agency Administration Program Certificate
Department of Industrial Technology
Technology Management Certificate
Department of Management
Training and Development in Business Certificate
Department of Marketing
Certificate in Marketing Research and Consulting
Department of Modern Languages
Certificate in French Language Studies
Certificate in German Language Studies
Certificate in Japanese Language Studies
Certificate in Portuguese Studies
Certificate in Russian Language Studies
Certificate in Spanish Language Studies
International Commerce Certificate
Certificate in Translation (in French, German, Portuguese, Russian, or Spanish)
Department of Psychology
Gerontology Program Certificate
Department of Social Work
Social Work Certificate
Substance Abuse Counseling Certificate

Department of Sociology, Anthropology, and Criminology
Skills in Social Research Certificate
Department of Special Education
Multicategorical Resource Teaching, K-6 Certificate
Multicategorical Resource Teaching, 7-12 Certificate
College of Business Administration
Certificate in International Business
College of Business Administration/College of Education
Tourism Certificate (jurisdiction through School of Health, Physical Education, and Leisure Services)
College of Humanities and Fine Arts
Certificate in Leadership Foundations
College of Social and Behavioral Sciences
Conflict Resolution Certificate

## Requirements for Graduation

In addition to the completion of one of the baccalaureate degree programs, there are other specific requirements for graduation which apply to all undergraduate students seeking any bachelor's degree, other than the Bachelor of Liberal Studies. These are listed below. See pages 134-136, 167, 169-170 and 173 for graduation requirements for a graduate degree program.

## A. Residence

1. Not more than 32 semester hours earned in correspondence, extension, radio, or television courses may be used toward graduation.
2. At least 36 weeks spent in residence at this University while earning in such residence at least 32 hours of credit, of which 20 hours must be earned in the junior and senior years.
3. At least 32 hours of credit earned in the junior and senior years in courses at this University. This total may include nonresidence credit.
4. The last semester or full summer session before graduation spent in residence at this University.
B. Scholarship
5. A student 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.
6. 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 her/his 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 licensure. All students who enter UNI with or after the Fall 1988 semester 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 $s($ he ) is registered would meet all the requirements for graduation exclusive of grade points, and if the grade points to be earned do not exceed the number which could be earned for the hours for which 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) semester hours of credit 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. One year in advance of the time a student plans to enroll in student teaching, $s$ (he) will be invited to attend a Student Teaching

Roundup during which s(he) will complete the necessary steps to apply to student teach and to receive a student teaching assignment. To be eligible for assignment to a student teaching placement, $s$ (he) must have completed the following requirements:
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 the appropriate academic department or department approval;
e. A 2.50 or higher GPA in courses completed in the Professional Education Program; and
f. All methods courses listed as prerequisites for student teaching with a grade of " $C$ " (2.00) or higher as well as other departmental requirements.

## 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 is required for issuance of a license.

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 and early childhood teaching, secondary teaching in content areas, or teaching in a special area such as art or music. The student usually can secure appropriate licensure in other states by making proper application and fulfilling any additional requirements.

In addition to holding a license valid for a specific teaching level, 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 the issuing institution. To secure the recommendation of the University of Northern Iowa, the student must 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 major or minor.

This University may recommend for licensure those graduates of other colleges or universities who have completed their professional work here. However, 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 an approved course in human relations.
For additional information, contact the Office of the Registrar, 227 Gilchrist Hall, University of Northern Iowa, Cedar Falls, IA 50614-0006.

## Hours of Credit Needed to Renew or

 Reinstate a LicenseRenewal and reinstatement requirements are established by the Iowa State Board of Educational Examiners and are subject to change by that 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 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 50319-0146

## The Placement Center

Registration with the Placement Center within The Career Center 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 twelve graduate degrees:
A. Master of Accounting -- a minimum of 30 semester hours
B. Master of Arts -- a minimum of 30 semester hours:

Majors
Art
Audiology
Biology
Chemistry
Communication Studies
Communications and Training Technology
Computer Science Education
Educational Technology
English
French
Geography
German
Health Education
History
Leisure Services--Youth/Human Services Administration
Mathematics
Mathematics for the Middle Grades (4-8)
Mental Health Counseling
Music
Physical Education
Physics Education
Political Science
Psychology
School Library Media Studies
Science Education
Science Education for Elementary Schools (K-6)
Sociology
Spanish
Speech-Language Pathology
Teaching English to Speakers of Other Languages (TESOL)
Technology
TESOL/Modern Languages
Theatre
Two Languages: French/German, Spanish/French, German/Spanish
C. Master of Arts in Education -- a minimum of 30 semester hours.

Majors
Early Childhood Education
Education of the Gifted
Elementary Education
Elementary Reading and Language Arts
Educational Psychology
Middle School/Junior High School Education
Postsecondary Education: Student Affairs
Principalship
Reading Education


School Counseling
Secondary Reading
Special Education
Teaching
D. Master of Business Administration -- a minimum of 31 semester hours.
E. Master of Music -- a minimum of 30 semester hours.

Majors
Composition
Conducting
Jazz Pedagogy
Music Education
Music History
Performance
Piano Performance and Pedagogy
F. Master of Public Policy -- a minimum of 41-45 semester hours.
G. Master of Science -- a minimum of 30 semester hours.

Majors
Biology
Chemistry
Computer Science
Environmental Science
Environmental Technology
H. Master of Social Work -- a minimum of 60 semester hours

1. Specialist -- a minimum of 30 semester hours beyond the master's degree.
Major
Science Education
J. Specialist in Education -- a minimum of 30 semester hours beyond the master's degree.
Major
School Psychology
K. Doctor of Education -- a minimum of 60 semester hours beyond the master's degree.
L. Doctor of Industrial Technology -- a minimum of 64 semester hours beyond the master's degree.

## Academic Requlations

## 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 contact their record analyst in 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. A 3.00 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 their record analyst in the Registrar's Office.

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

The normal maximum graduate student load during the eightweek summer session is nine (9) hours; that normally permitted during each four-week split summer session is four-five (4-5) 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
Senior
90 and over

## Fulltime/Parttime Status

Fall and Spring Semesters Undergraduate
Fulltime
3/4 time
$1 / 2$ time
Less than $1 / 2$ time
Summer Semesters*
Fulltime
3/4 time
1/2 time
Less than $1 / 2$ time

12 or more hours
9-11 hours
6-8 hours
1-5 hours
6 hours
4-5 hours
3 hours
1-2 hours

Graduate
9 or more hours
7-8 hours
5-6 hours
1-4 hours

5 hours
4 hours
3 hours
1-2 hours
*The above specifications apply only to eight-week courses. For the specifications which apply to four-week session courses or a combination, consult the Office of the Registrar.


## 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, in order to complete the program and fulfill requirements for graduation. When the major is declared, the student is assigned an advisor in the major department and a Declaration of Curriculum with this information is filed by the student with the Office of the Registrar.

When students have declared a major, they are eligible for a Degree Audit/Advisement Report. This is prepared by the Office of the Registrar and sent to the student.

## Change of Registration

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 third week 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 third week of the term. To add a class for credit after the third week 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 $F$ (Failed) 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 students drop all classes for which they are registered.

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

Academic fees for a student enrolled for a regular semester or summer session who withdraws from the University will be reduced by the percentage indicated in the table below, beginning with the date of formal withdrawal with the Registrar. The amount of reduction will vary from 90 to 25 percent. 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.)

Fall/ Spring Semester Summer Semester
Withdrawl on day number-

| Percentage of <br> fee reduction | Withdrawal <br> during specified <br> instructional days | Regular schedule <br> (8-week or longer <br> sessions) | Short schedule <br> (4-week sessions) |
| :---: | :---: | :---: | :---: |
| 100 | before classes begin | before classes begin | before classes begin |
| 90 | $1-8$ | $1-4$ | $1-2$ |
| 50 | $9-20$ | $5-10$ | $3-5$ |
| 25 | $21-40$ | $11-20$ | $6-10$ |
| 0 | after 40th day | 21 st day or later | 11 th day or later |

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. Those students receiving financial aid must contact the Financial Aid Office. 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 an Identification Card which is used throughout attendance at the University. A fee of $\$ 15.00$ is charged to replace the 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.

## Policy on Make-up Work and Missed Classes

It is the expressed focus of the University of Northern Iowa to further the educational development of each of its students. While this goal is primarily a curricular undertaking, there are also valuable and educationally appropriate extra-curricular events which are important to the University. On occasion these extra-curricular activities will require students to be away from campus, sometimes necessitating their absence from class. In order for both faculty and students to effectively plan for these absences, the following procedures are recommended.

1. All parties involved should be made aware of scheduled absences well ahead of the date(s) of absence. If at all possible a semesterlong schedule should be prepared and distributed at the beginning of each semester.
2. In instances where semester-long schedules are not feasible, two weeks written notification shall be given for all absences. This notification shall take place even if the absence is potential rather than definite. Assuming the appropriate notification has been provided, students and faculty shall mutually agree as to how assignments, lectures, exams, etc. shall be made up. All work shall be made up in advance if at all possible. The type and extent of make-up work shall be at the discretion of the faculty member.
3. Occasionally there will occur situations where two weeks notice is impossible. On these occasions, students, faculty, extra-curricular supervisors, and others concerned should work closely together to ascertain whether special arrangements can and/or should be made.
4. Missing a class or exam for a University-sponsored or sanctioned event shall not adversely affect a student's grade in a course.
5. Where situations of irreconcilable disagreement occur, a panel comprised of the Vice President for Academic Affairs, or that officer's designee, the Department Head of the academic department involved, the Department Head of the extra-curricular department involved, the faculty member, and the student shall meet at their earliest convenience to mediate the matter.

## 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 $F$ (Failure) unless a report of $I$ (Incomplete) has been authorized by the instructor. The Incomplete 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 Incomplete 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 incomplete 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 (I) in the Fall session for graduate students must be completed by June 1 st the next calendar year. Work reported incomplete in the Spring and Summer sessions must be completed by January 1st the next calendar year. 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 an F (Failure) on the student's record.

Any requests for an exception to the above guidelines for graduate students must be submitted in writing to the Graduate College. Only under the most unusual circumstances would requests for additional time be approved.

Some courses continue beyond the normal ending date of the semester or session. In such cases the initial grade reported will be an $R C$ which means Research or Course Continued. Once the extended instructional period is finished the $R C$ grade will be replaced with the $A$ Fgrade 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 courses. 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; $D-, 0.67$; $\mathrm{F}, 0$ 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 $s($ he) has previously failed, only the grade received for the successful completion will be included in figuring the cumulative grade point. If a student repeats a course $s($ he ) 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 thirteen grade points for a 2.00 cumulative index at UNI will be placed on probation. No entry of this is made on the student's permanent record.

Suspension: A student who at the end of any semester or summer session is fourteen or more grade points deficient of a 2.00 grade index at UNI or in combination with her/his 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.
A. Those whose grade index on the basis of work at this University is 3.75 or higher are awarded Summa cum laude.
B. Those whose grade index is 3.50 or higher, but less than 3.75 are awarded Magna cum laude.
C. Those whose grade index is 3.25 or higher, but less than 3.50 are awarded cum laude.
The names of the students receiving honors are identified in the commencement program and on their academic transcript.

## College of Social and Behavioral Sciences Honors

## Program

The College of Social and Behavioral Sciences offers an Honors option to students majoring in one of the academic programs within the College. In the Honors program, students enjoy the benefits of smaller classes, individualized attention, specialty courses, and honors sections of general education courses offered by CSBS faculty. Entering freshmen may apply for admission to the CSBS Honors Program if they received an ACT score of 27 or better, or graduated in the top $20 \%$ of their class, or earned a high school GPA of 3.65 or better and if they intend to major within the College. Any student, after completing a semester at UNI, who has at least a 3.30 GPA and who intends to major within the College, may also apply. To remain in the program, a student must maintain an overall 3.30 GPA .

To graduate from the CSBS Honors Program, a student will need to have a declared major in the College and will need to complete 15 hours in Honors courses with a minimum of 3 hours in upper division seminars and a 3-hour Senior Honors Thesis. Graduation from the Honors Program will be noted on the student's transcript.

Required:

1. Honors sections of Category I (Civilizations and Cultures) or Category IV (Social Science) of General Education.... 3 hours
2. $900: 196$ Honors Seminar
(topic will vary; may be repeated) •.o......................o.o.... 3 hours

3. Honors electives from 1 or 2 , above, or 900:198 Independent Study ( 3 hrs. maximum) ......... 6 hours 15 hours
For more information, contact the Honors Coordinator, 117 Sabin Hall, (319) 273-7286.

## 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 $s(h e)$ 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 (200:017), Field Experience: Teacher as Change Agent (200:128), and for Student Teaching (280:132 through 280:140), 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 retaken except by special permission of the Dean of the College in which the course is offered.
8. A graded course completed may not be retaken 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 or 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/ Internship Program

Cooperative Education/Internships is an educational program which helps students integrate academic study with work experience. The program is administered through The Career Center and is located in the Student Services Center, Room 126. Students in the Coop/Internship Program may work full-time or part-time in a business, industry, or governmental/non-profit setting in locations ranging from local to international. All co-op/internship placements are credit bearing.

Participation in co-op/internships is optional, except for certain majors which require participation for graduation. Academic departments establish requirements for enrollment. Students may qualify for course enrollment when all of the following conditions are met:

1. The student has reached at least sophomore status.
2. The student has a grade point average of at least 2.50 based upon one semester or more of course work at UNI. Some departments may require a higher minimum grade point average than 2.50 or completion of identified prerequisite course work before participation.
3. A UNI faculty member approves the placement opportunity and
all arrangements, including project to be completed, and agrees to supervise and evaluate the student's learning experience.
4. Approval is obtained from the head of the academic department granting credit.
Staff from the Co-op/Internship Program can assist students with developing a placement opportunity and arranging for supervision at the placement site. Placements may occur during fall, spring, or summer terms. Students are encouraged to contact the Co-op/Internship Office during their freshman year to determine the point in their academic progression at which participation in a co-op/internship opportunity will benefit them most. Students may participate in more than one co-op/internship experience. Information on the program can be found at http://www.uniedu/placemnt/coop/

## 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, or for a course for which the student does not meet the prerequisite, or 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 52.

## 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 page 95 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 audited (visited) 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 auditing (visiting) 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. The ability to write well contributes to success in the classroom and in one's personal and professional life. Northern Iowa is committed to helping students become competent writers. At UNI students write in General Education and in each undergraduate major. The General Education writing experience lays a foundation for the writing required within academic majors. Each department sets the writing requirements for its majors, and because writing needs vary across disciplines, the requirements vary across departments.

Students satisfy Northern Iowa's General Education writing requirement by completing one of three General Education writing courses: 620:005, "College Reading and Writing"; 620:015, "Expository

Writing"; or 620:034, "Critical Writing About Literature." For students who do not meet the English admissions requirement, and for other students with limited writing experience, 620:002, "College Writing Basics," provides practice at the skills necessary for success in these courses.

## 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 administered regularly throughout the year. Persons 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 without Essay or with Essay, Humanities, Mathematics, Natural Sciences, and Social Sciences-History. The test scores are reported as scale scores. Scores are compared 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 may be applied to General Education requirements at UNI (a score of 70 percentile or higher in four of the general tests earns credit; in mathematics, a 97 percentile is required). 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, or 70th percentile for some exams, 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 three 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 52.

Credit established by CLEP at an institution participating in the Iowa Community Colleges/Regents' Universities Credit by Examination Agreement will be accepted in transfer at full value when terms of the agreement are met.

Students who have established credit by CLEP at a college or university other than an Iowa Regents' University or an Iowa area community college participating in the Iowa Credit by Examination 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 $s($ he) 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 $\$ 54$ is charged for each examination. Fee payment, registration procedures, and test date information are available by contacting Academic Advising Services, Student Services Center 125, UNI, (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, history, mathematics, modern language (French, German, Spanish), music, physics, political science, and psychology to students who pass examinations with scores of 3,4 , or 5 . Details of this program may be obtained from Academic Advising Services, UNI. (For limitations in the total amount of credit earned by examination, see page 52.)

## 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 pages 9-12 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 Associate Vice President for Academic Affairs, depending on the nature of the request.

## Academic Ethics Policies

Students at the University of Northern lowa 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 $s(h e)$ 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 " P ", than $\mathrm{s}(\mathrm{he})$ would otherwise achieve. Such a response by an instructor is part of the normal grading process; if a student feels that $s($ he ) 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 University Student Disciplinary Code contains more specific information concerning student conduct and disciplinary action. This information is available by accessing the UNI home page on the World Wide Web
http://www.uni.edu/vpess/handbook.html. Individual copies are available in the Office of the Vice President for Educational and Student Services, 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 227, Gilchrist Hall.

## Student Persistence

Iowa Regents' Universities have conducted studies annually of student persistence to graduation. A summary of the findings of the most recent study may be secured from the Office of the Registrar.

## Academic Grievances/ Undergraduate Students

Equitable due process in academic matters is provided in grievance procedures for undergraduate 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 Provost and Vice President.

## Academic Grievances/ Graduate Students

For graduate students and graduate assistants, equitable due process in academic matters is provided in grievance procedures established by the Graduate College. Copies of the grievance procedure guidelines and grievance forms are available in the Office of the Graduate College.

## UNI Policy on NonDiscrimination and Affirmative Action

## Policy Statement:

The University of Northern Iowa is committed to providing equal employment opportunity through recruitment, employment, and promotion of individuals without regard to race, color, sex, age, disability, veteran status, religion, national origin, or sexual orientation. The University has established its nondiscrimination/equal opportunity policy as follows:

No person shall be excluded for participation in, be denied the benefits of, or be subjected to discrimination in employmnent, any educational program, or any activity of the University, on the basis of race, color, sex, age, disability, veteran status, religion, national origin, sexual orientation, or on any other basis protected by federal and/or state law.
The University of Northern Iowa seeks to prohibit discrimination and to promote affirmative action in its educational and employment policies and practices. These policies are implemented in compliance with applicable federal and state nondiscrimination and affirmative action laws and regulations.

## Procedures:

The responsibilities of the Office of Compliance and Equity Management include, but are not limited to, coordinating the University's commitment to nondiscrimination (equal opportunity) into an effective, organized system using applicable federal and state laws and regulations; developing an affirmative action plan; monitoring those policies and practices affecting employment which are under the jurisdiction of government guidelines; and reviewing all complaints alleging discrimination. The denial of equal access to any program or activity or the unlawful consideration of any applicant or employment on the basis of race, color, sex, age, disability, veteran status, religion, national origin, sexual orientation, or any other basis protected by federal and/or state law for any employment opportunity or terms or condition of employment, may constitute a violation of the University's policy and will be subject to appropriate review by the Office of Compliance and Equity Management.

Any employee who has a question or complaint is encouraged to discuss the matter with their supervisor. An employee who has been unable to resolve a complaint through the established University procedures, or who otherwise chooses to do so may contact Compliance and Equity Management, or Human Resource Services.

Approved by the President's Cabinet
September 13, 1999
For additional information, contact the Office of Compliance and Equity Management, 115 Gilchrist Hall, UNI, (319) 273-2846, or visit our World Wide Web home page http://www.uni.edu/equity.

## 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)

## http://www.cba.uni.edu/accounting

G. Smith, Head. R. Abraham, M. Allen, L. Andreessen, W. Bowlin, D. Coarts, D. Davis, W. Greer, S. Hansen, T. Lindquist, L. Nicholas, M. Oleson, C. Renner, D. Schmidt, M. Wartick.

Note: Students majoring in Accounting must satisfy the College of Business Administration (CBA) admission requirements before they can officially declare their major. A copy of the Admission, Retention, and Graduation Policy may be obtained from the Advising and Student Services Office in the College of Business Administration. Prior to completion of the admission requirements, students may sign an intent to major in accounting and be classified as a prospective (pre) major. Pre-Accounting majors may enroll in lower division (below 100) business courses only. Enrollment in upper division ( 100 -level) business courses requires satisfactory completion of the CBA admission requirements and any course prerequisites.

Accounting majors may declare a double major, and/or major and minor within the College of Business Administration subject to regulations imposed by those CBA departments affected. Accounting majors minoring within the CBA must select minors designated for business majors.

To graduate with a major in Accounting from the College of Business Administration, a student must earn at least 50\% of the business credit hours required for the major at UNI. In addition, a minimum of nine graded hours must be earned in 100-level UNI Accounting courses. Students must take at least $50 \%$ of the course work required for the degree outside the College of Business Administration. Up to nine hours of economics (excluding 920:020) and six hours of statistics may be counted as outside the College of Business Administration. A student must earn a 2.20 cumulative grade point average at UNI and earn an overall 2.20 grade point average in 120:x0x, $130: 00 x, 150: x_{0 x}, 160: x 0 x$, and $920: x 0 x$ courses taken at UNI.

Students who want to write the Uniform CPA Examination in Iowa should secure current requirements from the Iowa Accountancy Examining Board in order to plan their program of study so that all requirements are met. Students who want to write the Uniform CPA Examination in other states should secure the same information from the applicable state board of accountancy.

Students may repeat Accounting courses with the exception that subsequent to successfully completing a 100 -level Accounting course, they may not repeat Principles of Financial Accounting (120:030) or Principles of Managerial Accounting (120:031).


## Bachelor of Arts Degree Programs Accounting Major

## Required Business Core:

Accounting: 120:030; 120:031 ........................o.o..................... 6 hours*

Management: 150:080; 150:100; 150:153; 150:154;
150:175
15 hours

Economics: 920:020*; 920:053; 920:054; 920:070* ............... 12 hours Required:

Accounting: 120:129; 120:130; 120:136 $\qquad$ 9 hours Electives:

Accounting: 120:131; 120:132; 120:134; 120:135; 120:139; 120:141; 120:142 2 hours 57 hours
Students who wish to be a candidate for the Uniform Certified Public Accountant Examination should follow the requirements of the Iowa Board of Accountancy.
*In addition to the required 57 hours, 920:020 and 920:070 have as a prerequisite 800:072 or 800:092, either of which will satisfy Category 5C of the General Education Program.

## Accounting Minor-Business

Required:
Accounting: 120:129; 120:130 . 6 hours
Accounting Electives from the following: $120: 131 ; 120: 132$
120:134; 120:135; 120:136; 120:141; 120:142
6 hours
12 hours
Available to Majors in: Business Teaching, Economics-Business Analysis Emphasis, Finance, Management, Management Information Systems, Marketing, and Real Estate.

## Accounting Minor

Required:



Electives: at least 9 hours from Accounting area ...to.........onomen 2 hours 18 hours
NOT available to majors in Accounting, Business Teaching, Economics-Business Analysis Emphasis, Finance, Management, Management Information Systems, Marketing and Real Estate.
Note: 130:101 has a prerequisite of either 920:024 or 920:053. 920:024 or both 920:053 and 920:054 will satisfy Category 4B of the General Education Program.

Undergraduate Program Requirements Art

## Art

## (College of Humanities and Fine Arts)

## http://www.uni.edu/chfa/ART.HTML

M. Frisbee Johnson, Head. C. Adelman, R. Behrens, S. Bigler, J. Byrd, R. Colburn, T. Dooley, f. echeverria, P. Fass, O. Johnson, M. Lipke, J. Petsch, J. Schnabel, T. Stancliffe, C. Streed, A. Wilson, K. Yuen.

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 a professional 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.

Courses in the Department of Art require specialized materials, some of which are provided through Art Lab fees.

## 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, and Art History I during the first semester and Drawing II, 3-D Concepts, and Art History II the second semester.

The Foundations Program is a prerequisite for introductory level courses taken only by Art Majors and Minors.

Required:
Art. 600:018; 600:019; 600:026; 600:027; 600:040; 600:041 ...... 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

The B.F.A. Art Major with Studio Emphasis requires a minimum of 130 total hours to graduate.
Required: Foundations Program (requirements listed above) ..... 18 hours
Required: B.F.A. Portfolio Admission Review
(requirements listed above) ..... 0 hours
Required: Studio Distribution ..... 12 hours
Group $1-600: 025 ; 600: 032 ; 600: 033$ or $600: 035 ; 600: 080$.
Group 2 -- 600:037; 600:050; 600:060; 600:074.
Required: Art History Distribution ..... 9 hours
Other requirements:
600:192 B.F.A. Seminar ..... 2 hours
600:196 B.F.A. Project I (in area of studio concentration) ..o... ..... 3 hours
600:189 B.F.A. Exhibition .....  0 hours
Studio Electives ..... 30 hoursAs a graduation requirement, each B.F.A. candidate must completea concentration of no less than 15 semester hours in any one of the fol-lowing studio areas: ceramics, drawing (excluding Drawing I andDrawing II), graphic design, jewelry/metals, painting, photography,printmaking, or sculpture. These semester hours are to be derived fromthe Studio Electives.

Also required is the B.F.A. Exhibition ( $600: 189$ ). The B.F.A. exhibition serves as an 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:

$$
\text { Group } 1--600: 025 ; 600: 032 ; 600: 033 \text { or } 600: 035 ; 600: 080 .
$$

$$
\text { Group } 2--600: 037 ; 600: 050 ; 600: 060 ; 600: 074
$$

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, jewelry/metals, painting,photography, printmaking, or sculpture.
Studio courses used to fulfill the studio distribution requirementcannot be used to fulfill requirements in the studio concentration.
Studio Electives ..... 6 hours

## Art Major-Art History Emphasis

Required: Foundations Program
(requirements listed above) $\qquad$ .18 hours
Required: Studio Distribution .6 hours
--One course from each of the following groups:
Group 1-- 600:025; 600:032; 600:033 or 600:035; 600:080.
Group 2 -- 600:037; 600:050; 600:060; 600:074.
Required: Art History Distribution $\qquad$ 6 hours
--One course from each of the following groups:
Group 1--600:139; 600:140; 600:141-01; 600:141-05 600:141-06.
Group 2 -- 600:141-02; 600:142; 600:144; 600:146; 600:151; 600:152.
Required: Art History in Non-Western Cultures $\qquad$ 3 hours
--One course from the following: 600:139; 600:140; 600:141-03; 600:141-04; 600:141-07; 600:147.
Required: Art History Research Methods and
Writing Course: 600:138 .2 hours
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 $\qquad$ 6 hours
A minimum of two courses from the above listing of
art history courses and/or 600:153, 600:191
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)

The Art Education Major in Teaching requires a minimum of 132 total hours to graduate.

Required: Foundations Program
(requirements listed above) .18 hours
Required: History of Art Distribution .nomenoconoonoonoonoonooocono....... 6 hours
Required: Art Education: 600:091*; 600:093*; 600:120*;
600:121*
.10 hours

--Two courses from each of the following groups:
Group 1--600:025; 600:032; 600:033 or 600:035; 600:080.
Group $2--600: 037 ; 600: 050 ; 600: 060 ; 600: 074$.
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, jewelry/metals, painting, 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 240:020 of the professional education requirements.

## Art Minor

Required: Foundations Program<br>(requirements listed above)<br>.18 hours<br><br>21 hours

## Art Minor--Teaching

> Required: Foundations Program (requirements listed above) 18 hours
> Required: Studio Electives
> 6 hours
> Required: Art Education (elementary and secondary)
> Elementary Art Education: 600:091 and 600:120.
> .5 hours
> Secondary Art Education: 600:093 and 600:121 .nococecoceococoo. 5 hours
> 34 hours

## Biology

## (College of Natural Sciences)

## http://www.bio.uni.edu

B. Hetrick, Head. L. Beltz, V. Berg, B. Bergquist, D. Brecheisen, E. Brown, M. Clayton, J. Demastes, K. Dhanwada, J. Gerrath, L. Jackson, L. Jones, J. Jurgenson, Q. Lan, C. Lee, M. McDade, D. Mercer, K. Nuss, S. O'Kane, K. Pontasch, O. Schwarth, R. Seager, D. Smith, C. Thurman, J. Trainer, M. Walter, P. Whitson, D. Wiens.

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.

## Academic Standard Policy

## Majors

1. Students should indicate their interest in majoring in Biology any time after their admission to UNI by filling out a Declaration of Curriculum form and selecting the choice "to continue as a student at UNI with a prospective major of Biology (or other major or emphasis)". Thereafter, students will be considered "prospective majors" and will be expected to attend departmental advising sessions at regularly scheduled intervals.
2. A student's freshman year shall be devoted primarily to completing the required course work in general biology (840:051 and 840:052) and chemistry (860:044 and 860:048, or 860:070). General Education and/or math classes should be taken by students to complete their schedules.
3. The following criteria shall be used for determination of acceptance as a fully declared Biology major:
a. 2.50 cumulative GPA in a minimum of 30 hours of course work '(to include 840:051 and 840:052; 860:044 and 860:048, or 860:070).

## Undergraduate Program Requirements Biology

b. Students must receive a grade of C - or higher in courses that are applied to the major to receive credit toward the prospective major.
c. Students with ACT mathematics scores below 24 are required to complete Intermediate Algebra 800:004 or Analysis for Business Students 800:043 or Elementary Analysis 800:046 with a grade of C- or higher before being accepted as a fully declared Biology Major.
d. Upon satisfaction of the acceptance requirements ( $a, b$, and $c$ above), a student shall be converted to major status by the Department.
e. Students not meeting acceptance requirements ( $a, b$, and $c$ above) will be restricted from taking Biology majors' courses beyond 840:052.
f. Students intending to declare their major at the end of the current semester will be allowed to register for major course work for the upcoming semester by completing a formal contract stating that if they do not meet the requirements for declaring the major by the beginning of the upcoming semester, the Department will cancel their registration in 100 -level Biology courses.
4. Any student who drops a course after the first seven days of classes will not be allowed to register for that course in the subsequent semester until all advanced registration is completed.
5. Transfer students entering UNI shall be subject to the acceptance requirements listed in section \#3.
6. To graduate from UNI with a Biology major, students must have both a cumulative and a major UNI GPA of 2.50 or higher, with a grade of C- (1.67) or higher in all courses that are applied to the major.

## Minors

Admission to a Biology minor requires a cumulative 2.50 GPA in at least 24 hours of course work (in all subjects, which must include 840:051 and 840:052).

To graduate from UNI with a Biology minor, students must have both a cumulative and a minor UNI GPA of 2.50 or higher, with a grade of C- (1.67) or higher in all courses that are applied to the minor.

## BIOLOGY CORE COURSES ARE TO BE SELECTED FROM LIST BELOW.

## Introductory: 840:051;840:052.

Group I (Cellular and Molecular Biology): 840:128**; 840:140; 840:151; 840:152.
Group II (Physiology and Development): 840:114/840:115; 840:122*; 840:137/840:138; 840:146; 840:172*.
Group Ill (Ecology): 840:103; 840:126*; 840:154; 840:168; 840:171*.
Group IV (Systematics and Evolution): 840:106; 840:112; 840:120*; 840:131; 840:132; 840:142; 840:148; 840:160; 840:162; 840:164; 840:166*; 840:170.
*At least one plant course must be taken from those marked with asterisk (*) in the core or from: 840:124; 840:173.
**840: 128 must be taken for 4 credit hours to fulfill core requirement.

## 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 Core:
        Introductory: 840:051; 840:052...................................... }8\mathrm{ h hours
        Group I: 840:140; 840:128 or 840:151 ............................... }8\mathrm{ hours
        Group II: Select one option..........................................4 hours
        Group III: 840:168..........................................................}3\mathrm{ hours
        Group IV: Select one option ..................................3-4 hours
    Biology: 840:157; 840:169; 840:190 (2-3 hrs.)..................6-7 hours
    Cognate courses:
        Mathematics: 800:060; 800:061....................................... }8\mathrm{ hours
        Computer Science: 810:030 or 810:035 ............................... hours
        Chemistry: 860:044; 860:048*; 860:120; 860:121;
            860:123
                                .16 hours
        Physics: 880:054; 880:056
                                . }8\mathrm{ hours
Electives in Biology (minimum of 36 hours of Biology is
    required; Biology electives include 100-level,
    excluding 840:101, and 860:154)
        .5-7 hours
        74 hours
*Students with excellent preparation in Chemistry may substitute 860:070 plus 3 additional credit hours of Biology electives for 860:044 and 860:048.
```


# Bachelor of Arts Degree Programs 

## Biology Major

This major provides a broad training in biology but allows different specializations through choice of electives. Students who select this major to prepare themselves for graduate study in the biological sciences should consult with their advisor for elective courses.

[^0]A student must demonstrate sufficient knowledge of mathematics by an ACT math composite of at least 24.
*Students with excellent preparation in Chemistry may substitute 860:070 plus 3 additional credit hours of biology electives for 860:044 and 860:048.

## Biology Major: Ecology and

## Systematics Emphasis

This emphasis provides training to students interested in organismal and/or ecological biology. With the guidance of a faculty advisor, students who wish to specialize further may follow one of four separate tracks: Ecology, Applied Ecology, Botany, or Zoology. This emphasis is appropriate for students interested in a career with private and governmental organizations conducting endangered species recovery, ecological restoration, biological surveys, toxicity evaluations, environmental impact analyses, field research, museum or herbarium curation, or who wish to work in zoos, nature centers, museums, or botanical gardens. This emphasis also provides suitable background for students wishing to pursue graduate degrees in ecology, animal behavior, systematics, conservation biology, environmental toxicology, population biology, and evolutionary biology. Students who want information about these careers may take 840:060. A program of field courses offered during the summer is available through Iowa Lakeside Laboratory.

## Required:

Biology Core:
Introductory: 840:051; 840:052........................................ 8 hours
Group I: 840:140 ................................................................ 4 hours

Group III: 840:168............................................................ 3 hours
Group IV: select two of the following: 840:112;
840:120; 840:160; 840:162; 840:164;


Cognate courses:

Chemistry: $860: 044 ; 860: 048^{*} ; 860: 063$ or
860:120 and 860:121
12-13 hours
 Electives: (100-level approved by department) ...........o.o......13-16 hours 62 hours
*Students with excellent preparation in Chemistry may substitute 860:070 plus 3 additional credit hours of Biology electives for 860:044 and 860:048.

## Biology Major: Biomedical Emphasis

This major offers basic preparation for medical, osteopathic, physical therapy, dental, veterinary, optometric, podiatric and other healthrelated programs. In addition, it prepares students for graduate study in biomedical sciences, e.gos 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 and professional programs can be considered in curricular planning.

## Required:

Biology Core:
Introductory: 840:051; 840:052......................................... 8 hours




Cognate courses:
Mathematics: 800:046 or 800:060 ..osenesenen........o.ene......... 4 hours
Chemistry: 860:044; 860:048*; 860:120; 860:121;

Physics: 880:054; 880:056 ............................................. 8 hours
Electives selected from the following (consult with advisor) ..5-6 hours
Biology: 840:106; 840:111; 840:114; 840:116 or 840:117;
840:124; 840:128; 840:132; 840:138; 840:140;
840:142 or $840: 148 ; 840: 144 ; 840: 146 ; 840: 147$;
840:150; 840:151; 840:152; 840:157; 840:185;
840:190; 840:198.
Chemistry: 860:154.
56 hours
*Students with excellent preparation in Chemistry may substitute 860:070 plus 3 additional credit hours of biology electives for 860:044 and 860:048.

## Biology Major: Environmental Emphasis

## (Extended Program)

This emphasis is designed to prepare students for careers in Environmental Biology. This degree is also appropriate for students planning graduate work in Biology or one of the multidisciplinary environmental fields such as Oceanography, Limnology, Geophysics, or Global Studies. For students considering an advanced degree in Environmental Science, see the B.S./M.S. program on page 165.

This emphasis requires a minimum of 130-131 total hours to graduate.
Required:
Environmental Science: 830:130 ..... 3 hours
Biology Core:
Introductory: 840:051; 840:052 ..... 8 hours
Group I: Select one option ..... 4 hours
Group II: Select one option. ..... 4 hours
Group III: 840:168 ..... 3 hours
Group IV: Select one option ..... 3-4 hours
Biology: 840:169 ..... 1 hour
Cognate courses:
Mathematics: 800:046 or 800:060 ..... 4 hours
Chemistry: 860:044 and 860:048*; 860:120, 860:121, $860: 123$ or both $860: 063$ and $860: 132$ ..... 16 hours
Earth Science: 870:031; 870:171 ..... 7 hours
Physics: 880:054; 880:056 ..... 8 hours
Economics: 920:053; 920:054; 920:123** ..... 9 hours
Electives: (approved by advisor) ..... 6 hours
76-77 hours*Students with excellent preparation in Chemistry may substitute860:070 plus 3 additional credit hours of Biology electives for 860:044and 860:048.
**Taking prerequisite courses 920:053 and 920:054 will satisfy Category 4B of the General Education Program.

## Undergraduate Program Requirements

 Biology
## Biology Major: Microbiology Emphasis

This emphasis provides a broad overview of microbiology, including virology, molecular biology, and general microbiology. It is excellent preparation for careers in microbiology in the health sciences or industry and for graduate training in microbiology and related fields.

Required:

## Biology Core:


Group I: 840:151; 840:152 ................................................. 8 hours


Group IV: Select one option .............................................-3-4 hours
Biology: 840:144......o.o.o................................................................ 4 hours
Cognate courses:

Chemistry: 860:044 and 860:048*; 860:120 and 860:121 and 860:123, or 860:063 .................... 12-16 hours
Physics: 880:054; 880:056................................................... 8 hours
Electives: selected from the following (consult with advisor)......3-8 hours
Biology: 840:128; 840:132; 840:147; 840:149; 840:150.
Chemistry: 860:154.
$\overline{62}$ hours
*Students with excellent preparation in Chemistry may substitute 860:070 plus 3 additional credit hours of biology electives for 860:044 and 860:048.

## Biology Major-Teaching

## (Extended Program)

The Biology Teaching major provides a broad education in biology. Along with professional education courses and student teaching, this curriculum is a sound preparation for teaching life science, biology, and other secondary science courses. This is an extended program requiring at least nine semesters; therefore, students should contact their advisors early in their program. This program is an excellent preparation for graduate work in biology or science education.

The Biology Teaching major requires a minimum of $135-140$ total hours to graduate.
Required:Biology Core:
Introductory: 840:051; 840:052 ..... 8 hours
Group I: 840:140 ..... 4 hours
Group II: 840:122 or 840:172 ..... 4 hours
Group III: 840:168 ..... 3 hours
Group IV: $840: 142 ; 840: 166$; one of the following: 840:160, 840:162, 840:164 or 840:170 ..... 10-11 hours
Biology: 840:169; one of the following -- 840:146; or840:101 and 840:102; or 840:114 and 840:115;or 840:137 and 840:1385-9 hours
Cognate Courses:
Chemistry: 860:044; 860:048*; 860:063. ..... 12 hours
Earth Science/Physics: 870:031 and 870:035; or 880:054 and 880:056; or 870:031 and 880:054 ..... 8 hours
Methods:
Science and Science Education: 820:190; 820:196 .......... 3 hours Biology: 840:193; 840:197 ............................................... 3 hours
*Students with excellent preparation in Chemistry may substitute 860:070 plus 3 additional credit hours of biology or chemistry electives for 860:044 and 860:048.

## Biotechnology Major

This major is designed to provide educational training for employment in modern biotechnology fields in both the public and private sectors or for graduate school. Basic skills in recombinant DNA, genetics, microbiology, and biochemistry are emphasized.

## Required:

Biology Core:
Introductory: 840:051; 840:052 ....................................... 8 hours



Group IV: Select one option .........................................-4-4 hours

Cognate courses:
Chemistry: 860:044 and 860:048*; 860:120;

Physics: 880:054.................................................................. 4 hours
Electives: Selected from the following list
(approved by advisor)
3-4 hours
Computer Science: 810:030 or 810:035.
Biology: 100-level or above.
Chemistry: 860:132;860:155;860:156.
Physics: 880:056.
Research: 840:190 or 840:195.
61-63 hours
*Students with excellent preparation in Chemistry may substitute 860:070 plus 3 additional credit hours of biology electives for 860:044 and 860:048.

## Biology Minor

## Required:

Biology Core:
Introductory: 840:051; 840:052.....0.0.0............................. 8 hours
Electives in biology: (100-level, excluding 840:101) ....o............ 15 hours
23 hours

## Blology 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.

[^1]
## Natural History Interpretation Minor

The Natural History Interpretation minor provides students with interpretive techniques and opportunities to gain practical experience with interpretation and environmental education program development. This minor can only be taken with the Biology Major: Ecology and Systematics Emphasis or the Earth Science Major: Interpretive Naturalist Emphasis. This combination of major and minor prepares students for employment as interpreters with park systems, nature centers, zoos, museums, planetariums, and other areas requiring natural history communication skills.

> Required:
> Science and Science Education: 820:132 ............................. 4 hours
> Biology: 840:184; 840:195 ( 8 hrs .); 840:196 ...................... 13 hours
> Anthropology: 990:125.
> 3 hours
> 20 hours

## Chemistry

## (College of Natural Sciences)

## http://www.chem.uni.edu/

D. Bartak, Head. J. Bumpus, R. Chin, S. Coon, C. Hanson, L. Hoistad, J. Macmillan, K. Manfredi, L. McGrew, C. Miller, A. Phelps, P. Rider, M. Sanger, I. Simet, W. Stigliani, R. Wiley.

Major programs are offered by the Department of Chemistry in two baccalaureate areas: the Bachelor of Science and the Bachelor of Arts.

Students considering a chemistry major should complete two semesters of general chemistry, 860:044 and 860:048, in the freshman year. Well-prepared students may be permitted to take 860:070, 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 <br> -- 130 semester hours 

## Chemistry Major

The Bachelor of Science Chemistry major 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.

## Required:

Mathematics: 800:060; 800:061
8 hours
Chemistry: 860:044 and 860:048, or 860:070; 860:110; 860:120; 860:121; 860:123; 860:125 or 860:147; 860:132; 860:137; 860:140; 860:141; 860:143 ( 2 hrs.); 860:145; 860:154; 860:180 ( 2 hrr .).
.44-47 hours
Physics: 880:130 and 880:131; or 880:054 and 880:056 and one 100 -level cognate elective of at least 3 hours ..8-11 hours Elective: a chemistry lecture course carrying a physical
chemistry prerequisite
3 hours
63-69 hours

Notes: To satisfy American Chemical Society guidelines for certification of the chemistry major, the two hours of $860: 180$ undergraduate research required for this program must be taken after completion of either $860: 140$ Physical Chemistry: Thermodynamics or $860: 141$ Physical Chemistry: Kinetics, Quantum Mechanics, and Spectroscopy. Also, the elective course should be chosen with the help of the major advisor to assure consistency on these certification guidelines of the American Chemical Society; an appropriate advanced course in another science may be included.

Students wishing to earn a non-certified Bachelor of Science degree may omit $860: 125$ or $860: 147,860: 145$, and $860: 154$, but must include 3 additional elective hours in Chemistry at the 100 -level or higher.

## Emphasis-Biochemistry

The Bachelor of Science Biochemistry Emphasis is accredited by the American Chemical Society. This emphasis prepares students for careers and/or advanced study in biochemistry. It also provides partial preparation appropriate for medical school and other health-related programs.
Required:
Mathematics: 800:060; 800:061 ..... 8 hours
Biology: 840:051; 840:052 ..... 8 hours
Chemistry: 860:044 and 860:048, or 860:070; 860:110;860:120; 860:121; 860:123; 860:132; 860:137;860:140; 860:141; 860:143 (2 hours); 860:154;860:155; 860:156
$\qquad$ .41-44 hours
Physics: 880:054; 880:056 ..... 8 hours
Additional advanced study, to include at least 2 hours of 860:180 Undergraduate Research and at least 3 hours in a 100-level biology course

## Emphasis-Environmental Chemistry

This emphasis prepares students for careers in the area of environmental chemistry. This degree is also appropriate for students planning graduate work in multidisciplinary fields including environmental science.

Required:
Mathematics: 800:060; 800:061 . .8 hours
Chemistry: 860:044 and 860:048 or 860:070; 860:120; 860:121; 860:123; 860:132; 860:137; 860:138; 860:140; 860:141; 860:143 (2 hours); 860:180 ( 2 hours) ............. $34-37$ hours Physics: 880:054; 880:056 ......................................................... 8 hours
Environmental Science Core: 830:130; 840:051; 840:052; 870:031; and one of the following four: 840:151; 840:168; 870:171;920:123 ................................. 18-19 hours
Economics: 920:024* ................................................................ 3 hours
71-75 hours
*Students may substitute both 920:053 and 920:054 for 920:024 if 920:123 is selected. Taking either 920:024 or both 920:053 and 920:054 will satisfy Category 4 B of the General Education Program.

## 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 $860: 180$ Undergraduate Research (at least 2 hours of which must be taken after completion of $860: 140$ Physical Chemistry: Thermodynamics or 860:141 Physical Chemistry: Kinetics, Quantum Mechanics, and Spectroscopy) and the writing of a senior research thesis. The research credit may be applied to the elective hours of the B.S. degree.

Undergraduate Program Requirements Chemistry/Communication Studies

## Bachelor of Arts Degree Programs

## Chemistry Major

This program provides experience in all basic areas of chemistry. With appropriate choice of University 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.

Required:
Mathematics: 800:060 and 800:061 $\qquad$ 8 hours
Chemistry: 860:044 and 860:048, or 860:070; 860:110; 860:120; 860:121; 860:123; 860:132; 860:137; 860:140; 860:141 .......................................................31-34 hours
Physics: 880:054 and 880:056; or 880:130 and 880:131 $\frac{8 \text { hours }}{47-50 ~ h o u r s ~}$

## Combined BA/MS Program Chemistry

The Department of Chemistry offers a combined program leading to the Bachelor of Arts and Master of Science degrees. Proper scheduling of courses allows the program to be completed in five years. The undergraduate requirements are identical to those of the ChemistryB.A. major listed above. Please refer to the Chemistry heading of the graduate section of this catalog (pages 164-165) for detailed information on enrollment procedures and graduate program requirements.

## Chemistry Major-Teaching

This program provides preparation for chemistry teachers.
Required:
Chemistry: 860:044 and 860:048, or 860:070; 860:120; 860:121; 860:123; 860:132; 860:140 or $860: 141$ or $860: 142$ $\qquad$ 20-23 hours

$$
\text { Physics: } 880: 054 \text { and } 880: 056 \text {; or } 880: 130 \text { and } 880: 131 \text {........ } 8 \text { hours }
$$ Methods:

Science and Science Education: 820:190; 820:196 .......... 3 hours
Chemistry: 860:193 ........................................................... 2 hours
Electives in chemistry beyond $860: 048$ or $860: 070$ .7-10 hours 43 hours

## Chemistry-Marketing Major

This program provides preparation for students interested in the sales and marketing aspects of the chemical industry.

Required:

Marketing*: 130:101; 130:106; 130:153; 130:161 or 130:178 12 hours
Management: 150:153................................................................... 3 hours
Chemistry: 860:044 and 860:048, or 860:070; 860:120;
860:121; 860:123; 860:132; 860:136 or 860:154;
860:142 ......................................................................24-27 hours

48-51 hours

Note: Students on this major are strongly encouraged to complete 130:108. Additional prerequisites for 130:108 are 150:080, 800:072, 920:020, and 920:070.
*All listed Marketing courses have either 920:024 or 920:053 as a prerequisite. Either 920:024 or both 920:053 and 920:054 will satisfy Category 4B of the General Education Program.

## Chemistry Minor

Required:
Chemistry: 860:044 and 860:048, or 860:070
.5-8 hours
Electives in chemistry beyond 860:048 or 860:070 $\qquad$ 12-15 hours 20 hours

## Chemistry Minor-Teaching

Required:
Chemistry: 860:044 and 860:048, or 860:070; 860:063, or $860: 120$ and $860: 123 ; 860: 132 ; 860: 142 ; 860: 193$........ $18-23$ hours Science methods:

Science and Science Education: 820:190; 820:196 .......... 3 hours
Electives from the following:
Chemistry: 860:110;860:121; 860:136;
860:186 (Studies in).
1-6 hours
27 hours

## Communication Studies

## (College of Humanities and Fine Arts)

## http://www.uni.edu/comstudy

J. Burtis, Head. R. Bankston, M. Beall, M. Bozik, P. Carlin, A. ChathamCarpenter, S. Chen, Z. Chen, R. Davilla, V. DeFrancisco, A. Dimitrova, J. Hall, B. Henderson, M. Jensen, D. Kruckeberg, C. Martin, K. Mitchell, J. Morgan, P. O'Connor, C. Ogbondah, C. Palczewski, G. Pohl, D. Shankar, P. Siddens, L. Terlip, J. Turner, C. Vernallis, L. White, B. Wickelgren.

Note: Students must achieve a minimum grade of $C(2.00)$ in all courses to be applied toward departmental majors or minors.
Advisory Statement: Requirements of a Communication Studies major or minor may also be used to meet the requirements of another major or minor; but electives may not be counted toward both.


## Enrollment Management Policy

This policy applies to the following: Communication Major (liberal arts "contract"), Communication/Public Relations Major, Communication/ Electronic Media Major, Communication Minor (liberal arts "contract"), Business Communication Minor, Communication/Jourralism Minor, and Communication/Public Relations Minor.

## Majors

1. Students may indicate their interest in majoring in a Communication Program any time after their admission to UNI. Formal indication of interest shall be made via the Declaration of Curriculum form at which time the student will be considered a "pre-major" and will be assigned an 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 48C:001 (Oral Communication) and 620:005/620:015/620:034. 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 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, with the exception of Electronic Media Majors which must have 2.70 cumulative GPA, (to include 48C:001 Oral Communication and 620:005/620:015/620:034).
b. 2.50 average GPA in the designated major component (except Political Communication).
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. 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.
5. Transfer students entering UNI with an associate arts (A.A.) degree shall be admitted to major status if their cumulative GPA is 2.50 or better, with the exception of Electronic Media Majors which must have 2.70 cumulative GPA or better, and upon the condition that the requirements of both 48C:001 (Oral Communication) and 620:005/620:015/620:034 were satisfied.
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: 48P:005.
B. Electronic Media: 48E:003.
C. Journalism: 48J:002.
D. Communication--Liberal Arts (Contract): 48C:004; 48C:006.
B. Political Communication: none.

## Minors

Admission to any Communication Minor (Liberal Arts, Business Communication, or Public Relations) or Journalism Minor requires a 2.50 cumulative GPA in at least 24 hours of course work (to include 48C:001 Oral Communication and 620:005/620:015/620:034). (Also, see 4 c above.)

## Bachelor of Arts Degree <br> Programs

## Communication Major (Liberal Arts)

The Communication major requires the completion of 52-57 credit hours, which includes a common core of 18-20 hours for all majors, an internal component of courses within the Communication Studies Department of 19-22 hours, and an external component of courses across the University of 15 hours. The internal and external components built into the major allow programs to be designed around the student's career objective(s) or educational goal(s), in such areas as general communication, culture and communication, interpersonal communication, organizational communication, etc. See department for model programs. The program of study requires the written approval of the student's academic advisor and the coordinator of the Communication Division. A copy of the approved major program will be filed with the department and the Office of the Registrar.

Required:
Communication Studies core:
48C:004; 48C:006; 48C:011 or 48C:071
or $48 \mathrm{C}: 139 ; 48 \mathrm{C}: 031$ or $48 \mathrm{C}: 074$ or $48 \mathrm{C}: 141$ or
$48 \mathrm{C}: 148 ; 48 \mathrm{C}: 126$ or $48 \mathrm{C}: 144$ or $48 \mathrm{C}: 174$ or
48 C : 180 or 48C:183 or 48 C : 185 or $48 \mathrm{C}: 189$ or
48C:190; 48C:108 or 48C:109 or 48C:1 10 or
$48 \mathrm{C}: 121$ or $48 \mathrm{C}: 122$ or $48 \mathrm{C}: 123$ or $48 \mathrm{C}: 124$ or
48C:151 or 48J:002; 48C:128; 48C:195 $\qquad$ 19-21 hours Internal Component (from Communication Studies) ..18-21 hours
*External Component (from across the University) .... 15 hours 52-57 hours
*The external component may be satisfied by completion of a minor in a discipline area approved by the student's academic advisor.

## Communication - Theatre Major Teaching

This teaching major in communication and theatre is offered jointly by the departments of Communication Studies and Theatre.
Required:
Communication: 48C:001; 48C:004; 48C:011; 48C:015; 48C:024; 48C:031; 48C:071; 48C:074; 48C:141; 48C:187; 48C:188 $\qquad$ 31 hours
Theatre: 490:001; 490:015; 490:134 (these three courses maybe taken in any sequence; all are prerequisites for 490:063); 490:063; 490:108 $\qquad$ .14 hours
Applied Activity Option: one hour from:
48C:091/48C:191 or 48C:093/48C:193 or 490:050 ..onoo...1 hour
Electives: ( 3 hours from the following) ....ono............................... 3 hours
Communication Studies: 48C:108 or 48C:109 or
48C:110; 48C:122; 48C:124; 48C:126; 48C:144;
48C:174; 48C:176; 48C:178.
Theatre: 490:040; 490:060; 490:061; other courses are available, consult with your advisor.

49 hours

## Communication/Electronic Media Major

| Required: |  |
| :---: | :---: |
|  |  |
| Electronic Media: 48E:003; 48E:021; 48E:071; 48E:121; |  |
| 48E:131; 48E:132; 48E:134; 48E:141; 48E:161; |  |
|  |  |
|  |  |
|  |  |
| Marketing*: 130:101; 130:106; 130:150. |  |
| Management: 150:153. |  |
| Communication: 48C:004; 48C:011; 48C:108 or |  |
| 48C:109 or 48C:110; 48C:113; 48C:121; 48C:122; |  |
| 48C:124; 48C:126; 48C:132; 48C:134; 48C:144; |  |
| 48C:146; 48C:166; 48C:173; 48C:176; 48C:180 or |  |
| $48 \mathrm{C}: 183$ or 48C: 185 or 48C:189 or 48C:190. |  |
| Electronic Media: 48E:011; 48E:013; 48E:073; 48E:111; |  |
| 48E:112; 48E:113; 48E:117; 48E:123; 48E:136; |  |
| 48E:138; 48E:139; 48E:163; 48E:166; 48E:171. |  |
| Journalism: 48J:007. |  |

*These courses require either 920:024 or 920:053 as a prerequisite. 920:024 may be used to satisfy Category 4B of the General Education Program.

## Communication/Public Relations Major

The Communication/Public Relations Major requires the completion of 18 hours in public relations, 12 hours in communication, 15 hours in journalism and 12 hours in business. (The concentration of study in business is in keeping with the specific recommendations for public relations education as outlined in The Design for Undergraduate Public Relations Education: Report of the 1987 Commission on Undergraduate Public Relations Education, co- sponsored by the Public Relations Division of the Association for Education in Journalism and Mass Communication, and Public Relations Society of America and the Educators Academy of PRSA.)

Required:

> Accounting: 120:030 3 hours


Journalism: 48J:002; 48J:007; 48J:071; 48J:132; 48J:172 .... 15 hours
Communication: 48C:004 or 48C:173; 48C:124;
$48 \mathrm{C}: 132 ; 48 \mathrm{C}: 180$ or $48 \mathrm{C}: 183$ or $48 \mathrm{C}: 185$ or $48 \mathrm{C}: 189$ or 48C:190 12 hours
Public Relations: 48P:005; 48P:170 or 48P:184
48P:173; 48P:182; 48P:188; 48P:190 or
48P:179/48P:197 (3 hrs.) ...o......................................................... hours 57 hours
*These courses require 920:024 or 920:053 as a prerequisite. 920:024 will satisfy Category 4B of the General Education Program.

## Political Communication Major

Required core:
Communication: $48 \mathrm{C}: 160 ; 48 \mathrm{C}: 180$ or $48 \mathrm{C}: 183$ or
48 C :185 or 48C:189 or 48C:190 6 hours



Geography: 970:114 ............................................................................. 3 hours

Communication: 48C:197 or
Political Science: 940:181.
Emphases (select two areas of focus with 5-6 hours from each area) ..o..................о.о................................................11-12 hours 36-37 hours
Focus Area 1: State and Local Public Affairs (6 hours) Political Science: 940:131;940:132; 940:148.
Focus Area 2: Political Campaigns and Elections (6 hours) Political Science: 940:112;940:134;940:151.
Focus Area 3: International Affairs (6 hours) Political Science: 940:125; 940:143;940:145. Geography: 970:116.
Focus Area 4: International Communication (6 hours) Communication: 48C:151.
Journalism: 48J:151. Public Relations: 48P:170.
Focus Area 5: Decision-Making (5-6 hours) Communication: 48C:128; 48C:137; 48C:148; 48C:178.
Focus Area 6: Political Discourse (6 hours) Communication: 48C:113;48C:123; 48C:171; 48C:172; 48C:174. Sociology: 980:138.
Focus Area 7: Media Analysis (5-6 hours)
Electronic Media: 48E:021; 48E:131; 48E:139; 48E:141; 48E:161.

## Business Communication 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 Department of Management and the Department of Communication Studies. The minor requires a 15 -hour core plus $5-6$ hours from one of three emphases.

Required core:
Communication: 48C:071; 48C:132 ........................................ 6 hours

English Language and Literature: 620:015;
620:104 or 620:105 ......................................................... 6 hours
Required: 5-6 hours from one of three emphases below .... $\frac{5-6}{}$ hours

## Emphases- <br> Business:

Management: 150:113; 150:114.
OR
Communication:
Two of the following:
Communication: 48C:031; 48C:137; 48C:139 or 48C:141; 48C:148*.
OR
Journalism and Public Relations:
Two of the following:
Journalism: 48J;071*; 48J:172*; 48J:176*.
Public Relations: 48P:173*; $48 \mathrm{P}: 184$.
*These courses require additional prerequisites.
Note: When declaring this minor students must:
a) have a 2.50 cumulative GPA.
b) have satisfactorily completed Categories 5A and 5B of the General Education Program.

## Communication Studies Minor (Liberal Arts)

Required:
Minor available in communication $\qquad$ minimum 18 hours

Requirements for the minor are designed, in consultation with a departmental advisor, with specific objectives for each area of study. Minors must include twelve (12) semester hours from 100 -level course work in the department (48C, 48E, 48J, 48P) excluding 48C:001, 48C:187, 48 C :188. Individually designed minors require the written approval of the advisor and the coordinator of Communication Studies. Pre-approved model programs may be obtained from the departmental office.

## Communication - Theatre Minor Teaching

This teaching minor in Communication and Theatre is offered jointly by the Departments of Communication Studies and Theatre.

> Required core:
> Communication: 48C:001; 48C:004; 48C:011; 48C:024; 48C:074; 48C:187 18 hours
> Option A or B 10-12 hours
> Option A: Communication ( 10 hours)
> Communication: one hour from 48C:091/
> 48C:191 or 48C:093/48C:193; 48C:015; 48C:071.
> Theatre: 490:101 or 490:106.
> Option B: Theatre ( 12 hours)
> Theatre: $490: 001 ; 490: 015 ; 490: 134$; (these three classes must be taken before 490:063); 490:063 28-30 hours

## Communication - Theatre Minor (K-6) - Teaching

This teaching minor in Communication and Theatre is offered jointly by the Departments of Communication Studies and Theatre.Required:Communication: 48C:001; 48C:004 or 48C:071;
48C:011; 48C:020 or 48C:024; 48C:141; 48C:184 ..... 16 hours
Theatre: 490:101; 490:104 or 490:106. ..... 6 hours
22 hours
Communication/Journalism Minor (Liberal Arts)
Required:Journalism: 48J:002; 48J:007; 48J:071; 48J:132;48J:171; 48J:17218 hours
Electives (Group A) ..... 3-6 hours
Journalism: 48J:121; 48J:151; 48J:166; 48J:176;Electives (Group B)0-3 hours
Educational Technology: 240:147
Industrial Technology: 330:169
Art: 600:032

## Communication/Public Relations Minor

Required:
Communication: 48C:124; 48C:132 ............................................ 6 hours
Journalism: 48J:007 ................................................................. 3 hours
Public Relations: 48P:005; 48P:173; 48P:182 .......................... 9 hours

Communication: 48C:173; 48C:180 or 48C:183 or 48 C : 185 or $48 \mathrm{C}: 189$ or $48 \mathrm{C}: 190$.
Public Relations: 48P:170; 48P:184; 48P:188
21 hours

## Program Certificate

For information on the following Program Certificates, see page 123 or contact the department office.

## Certificate in Public Speaking

Graduate Certificate in Corporate Communication

## Communicative Disorders

## (College of Humanities and Fine Arts) <br> http://www.uni.edu/chfa

K. Bleile, Head. C. Hageman, J. Harrington, C. Highnam, T. Kouri, J. Lubker, R. McGuire, L. Nelson, B. Plakke, J. Smaldino, D. Stevenson.

## Bachelor of Arts Degree Program

## Communicative Disorders Major

Required:
Communicative Disorders: 51C:100; 51C:106;-
51C:107; 51C:111; 51C:114;51C:125; 51C:127;
51C:129; 51C:151; 51C:152; 51C:155; 51C:162; 51C:164; 51C:175; 51C:177; 51C:180.
.39 hours
Statistical Measurement: a 3-hour course in statistics selected with approval of the major academic advisor ...... 3 hours
Additional requirements:
Students must select a minimum of six (6) credit hours from Option 1 or Option 2 ... 6 hours
Option 1. Pre-professional speech-language pathology:
Communicative Disorders: 51C:155; 51C:166; 51C:168.
Option 2. Pre-professional audiology:
Psychology: 400:154; 400:155; 400:173.
Health Promotion and Education: 410:125.
Social Work: 450:143.
Communicative Disorders: 51C:155; 51C:166; 51C:168.

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

## Undergraduate Program Requirements Communicative Disorders/Computer Science

Students must have an overall grade point average of 3.00 or consent of the department head to declare a major in Communicative Disorders. Declaration of the major must occur before enrollment in 51C:151 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 the required core courses offered by the Department of Communicative Disorders, and in the courses taken in either Option, 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. If a student does not attain and maintain the grade point requirement of the department, the student's Declaration of Major will be revoked and the individual referred to the Registrar's Office as an undeclared student. All majors and all provisional majors must obtain their advisor's signature before registering for, adding, or dropping classes.

## Computer Science

## (College of Natural Sciences)

## http://www.cs.uni.edu/

J. McCormick, Head. W. Beck, J. Drake, P. East, M. Fienup, M. Jacobson, K. O'Kane, E. Wallingord.

## Notes:

1. A student majoring or minoring in a program in the Computer Science Department must either. (a) have a 2.00 or better GPA in departmental courses counted for the program and have no grades below a C-, or (b) have a 2.25 GPA in departmental courses counted for the program when one or more of these courses has a grade below $C$-.
2. Undergraduate studehts 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. For each of the Computer Science majors (BS and BA), students must complete one sequence of two courses taken consecutively: 810:143 and 810:146 OR 810:161 and 810:162 OR 810:172 and 810:173.

## Bachelor of Science Degree

 Program-- 130 semester hours

## Computer Science Major

[^2]Electives:
Mathematics: $800: 169 ; 800: 176 ; 800: 177$.
Computer Science: any course 810:100 or above, except $810: 144$ or $810: 179$. One of the following must be completed:
Systems: 810:146.
Intelligent Systems: 810:162.
Software Engineering: 810:173.
. .6 hours



,

63 hours

## Bachelor of Arts Degree Programs

## Computer Information Systems Major

Required:
Mathematics: 800:050; 800:072........................................... 6 hours
Computer Science: 810:041;810:051; 810:052;810:053;
810:080; 810:144; 810:153; 810:154; 810:171;
810:172; 810:173.
35 hours
Business Core:
Accounting: 120:030; 120:031
.6 hours
Marketing: 130:101 .onou.o.................................................. 3 hours
Management: 150:153 ...................................................... 3 hours
Economics: 920:024 or 920:053 ....................................... 3 hours
Electives: $810: 034 ; 810: 114 ; 810: 115$...co..................................................... hours
62 hours

## Computer Science Major <br> Required: <br> Mathematics: 800:060; 800:072......................................... 7 hours <br> Computer Science: 810:041; 810:051;810:052;810:053; 810:080; 810:142; 810:153; 810:154; 810:171 ................. 29 hours <br> Electives <br> 9-10 hours <br> Mathematics: 800:169; 800:176; 800:177. <br> Computer Science: any course 810:100 or above, <br> except $810: 144$ or $810: 179$. One of the following <br> two-semester sequences must be completed: <br> Systems: 810:143; 810:146. <br> Intelligent Systems: 810:161 (lab required); 810:162. <br> Software Engineering: 810:172; 810:173. <br> 45-46 hours

## Computer Information Systems <br> Minor

Required:
Computer Science: 810:034; 810:051; 810:052; 810:080...... 14 hours

Computer Science: 810:022; 810:023; 810:041; 810:053; 810:114; 810:115; 810:161; 810:171.

17 hours

## Computer Science Minor

Required:
Computer Science: 810:041; 810:051; 810:052;
810:053; 810:080; 810:171 ............................................ 20 hours
Electives ............................................n........................................ 6 hours
Computer Science: At most one of the following: 810:030; 810:031; 810:032; 810:034.
any course $810: 100$ or above.

## Program Certificate

For information on the following Program Certificate, see page 123 or contact the department office.

## Computer Applications

# Curriculum and Instruction (College of Education) 

## http://www.uni.edu/coe/ci

R. Traw, Acting Head. C. Barnes, P. Beed, M. Betterton, M. Cai, C. Christensen, D. Christensen, R. DeVries, J. Finkelstein, L. Fitzgerald, J. Gerbo, L. Hansen, G. Holmes, L. Kuse, D. Landis, J. Marchesani, C. May, L. Nielsen, B. O'Donnell, B. Safford, D. Schumacher-Douglas, R. Sell, S. Smaldino, J. Steele, G. Stefanich, T. Switzer, D. Tidwell, L. Zeitz.

## Bachelor of Arts Degree Programs

## Early Childhood Education MajorTeaching

This major leads to licensure for teaching young children from birth through grade 3. 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:

## I. Professional Education Requirements-Early Childhood Education

Required:
Special Education: 220:150 2 hours
Educational Technology: 240:031 ..... 3 hours
Level I
Educational Psychology: 200:017; 200:030 ..... 4 hours
Level II
Educational Psychology: 200:128; 200:148 ..... 4 hours
Measurement and Research: 250:150 ..... 2 hours
Level III
Social Foundations: 260:119 ..... 3 hours
Human Relations: 280:070 ..... 3 hours
Teaching: 280:132 ..... 12 hours
33 hours
II. Early Childhood Education Major Requirements
Educational Psychology: 200:109 ..... 3 hours
Elementary, Early Childhood, and Middle Level Education: 210:121; 210:130; 210:149; 210:151; 210:161; 210:164; 210:192 (2 hrs.) .20 hours
Reading and Language Arts: 230:044; 230:115. ..... 6 hours
Design, Family and Consumer Sciences: 310:031 ..... 2 hours
Mathematics: 800:030; 800:134 ..... 6 hours
37 hours

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 Level
Education: 210:120; 210:152 ..... 6 hours
Reading and Language Arts: 230:116 ..... 3 hours
Health Promotion and Education: 410:135 or Physical Education: 420:045 or
Health, Physical Education and Leisure Services-Interdepartmental: 440:045 ..... 2-3 hours
Elementary, Early Childhood, and Middle Level Education: 210:123 or
Music: 520:102 or
Art: 600:090 ..... 2-3 hours ..... 13-15 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.

Students should plan their course work so that all Early Childhood courses are taken prior to student teaching. Students must have a cumulative GPA of 2.50 in order to student teach. Students should apply for their student teaching one year in advance.

## Elementary Education MajorTeaching (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 130-142 hours (depending on minor chosen). The prescribed program is as follows:
I. Professional Education Requirements-Elementary EducationRequired:Special Education: 220:1502 hours
Educational Technology: 240:031* ..... 3 hours
Level I
Educational Psychology: 200:017; 200:030 ..... 4 hours
Level II (Before enrolling in Level II, the student must beofficially admitted into the Teacher EducationProgram.)
Educational Psychology: 200:128; 200:148 ..... 4 hours
Measurement and Research: 250:150 ..... 2 hours
Level III
Social Foundations: 260:119 ..... 3 hours
Human Relations: 280:070 ..... 3 hours
Teaching: 280:1 xx Teaching (course numberdenotes area in which experience is achieved:280:132, 280:134, 280:135, 280:137, 280:138,280:139, 280:140, 280:250)12 hours

Undergraduate Program Requirements

## Curriculum and Instruction

## II. Elementary Education Major Requirements <br> Required:

Elementary, Early Childhood, and Middle Level
Education: 210:120 or 210:122; 210:150
or $210: 152 ; 210: 161 ; 210: 164$.................................. 12 hours
Elementary, Early Childhood, and Middle Level Education: 210:123 or
Music: 520:102 or
Art: 600:090 2-3 hours
Reading and Language Arts: 230:044; 230:115; 230:116 $\qquad$ .9 hours
Health Promotion and Education: 410:135 or Physical Education: 420:045 or
Health, Physical Education and Leisure ServicesInterdepartmental: 440:045 $\qquad$ 2-3 hours
Mathematics: 800:030; 800:134 ............................... 6 hours
31-33 hours
*Students must select 240:031 in place of 240:020 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 Level Education:
210:120 or 210:122; 210:161; 210:164.
Reading and Language Arts: 230:116.
Mathematics: 800:134.
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 (210:150 or 210:152), 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: 600:018; 600:019; 600:026; 600:027; 600:040; |
| :--- |
| 600:041; 600:091; 600:120......................................... 23 hours |
| Elective in art: may include 600:002 or 600:004 .................. 6 hours |
| 2 hours |

## Basic Science Minor (K-6)Teaching

Required:
Elementary and Middle Level Education: 210:141................ 3 hours
Science and Science Education: 820:031; 820:032;


Earth Science: 870:181 ...........................................................4 hours
25 hours
Communication - Theatre Minor (K-6) - Teaching
This teaching minor in Communication and Theatre is offered jointlyby the Departments of Communication Studies and Theatre.
Required:
Communication: 48C:001; 48C:004 or 48C:071; 48C:011; 48C:020 or 48C:024; 48C:141; 48C:184 .16 hours
Theatre: 490:101; 490:104 or 490:106. ..... 6 hours
22 hours
Elementary School Media Specialist Minor (K-6)-Teaching

Elementary majors interested in a minor in the school media area should complete the work listed for the Library Media Specialist Minor-Teaching. See page 77.
English/Language Arts Minor (K-6)- Teaching
Required:
eading and Language Arts: 230:11
230:140; 230:144; 230:193 (1 hr.) 16 hours
Theatre: 490:101 ..... 3 hours
English Language and Literature: 620:005; and one* of the following: 620:053; 620:055; 620:121; 620:124; 620:134; 620:153; 620:165 6 hours
*620:034 is a prerequisite for all of these courses.
Health Education Minor (K-6)- Teaching
ed. ..... 26 hours
(The Health Education Minor (K-6) is under the jurisdiction ofthe School of Health, Physical Education and Leisure Services.Requirements are listed on page 88.)
History Minor (K-6)-Teaching
Required:
Elementary, Early Childhood, and Middle Level Education: 210:143 ..... 3 hours
History: 960:014; 960:015; 960:130; 9 hours of world history including 3 hours of European history and 3 hours of Non-Western history 18 hours
Electives in History ..... 3 hours
Mathematics Minor (K-6)-TeachingRequired:
One of the following three General Education courses .....  3 hoursMathematics: 800:023; 800:072; 800:092.Mathematics: 800:030; 800:037; 800:111; 800:112;800:113; 800:11420 hours
One of the following two courses ..... 1 hourMathematics: 800:137; 800:192.
24 hours
Modern Languages Minor (K-6)- Teaching

## Physical Education Minor (K-6)Teaching

Required
(The K-6 Physical Education Minor is under the jurisdiction of the School of Health, Physical Education and Leisure Services. Requirements are listed on page 88.)
Reading Education Minor (K-6)Teaching
Required:
Reading and Language Arts: $230: 111 ; 230: 113 ; 230: 115 ;$ 230:132; 230:140; 230:147; 230:192; 230:193 (1 hr.) ........ 22 hours

## Social Studies Minor (K-6)Teaching

Required:
Elementary, Early Childhood, and Middle Level Education: 210:143 3 hours
Economics: 920:024 or 920:053 .............................................. 3 hours
Political Science: 940:014 ........................................................... 3 hours
History: 960:014 or 960:015 ..................................................... 3 hours
Geography: 970:010 or 970:040 ........................................... 3 hours
Sociology: 980:058................................................................. 3 hours
Six hours from at least one area: Economics*, American History, American Politics, Geography, Sociology........ 6 hours 24 hours

* (Not to include $920: 020$ or $920: 070$.) Students choosing the Economics option should take 920:053.


## Special Education Minor-Teaching <br> Required <br> .22-32 hours

(These emphases are under the jurisdiction of the Department of Special Education, and requirements are listed on pages 119-120. K-6 emphases can be selected from: Behavioral Disorders, Learning Disabilities, and Mental Disabilities Mild/Moderate.)

## Middle Level Education Major Teaching

This major is designed to prepare students to teach pre- and young adolescents at the middle level (grades 5-8). 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.

Required:
Educational Psychology: 200:116 $\qquad$ , 2 hours
Middle Level Education: 210:122; 210:135; 210:150 ........... 9 hours
Reading and Language Arts: 230:132 3 hours
A methods course in the subject area or minor.................2-3 hours
Electives selected with approval of advisor .........................13-14 hours 29-31 hours
The student teaching semester will include two experiences, one in either an elementary or secondary classroom and the other in a junior high or middle school. Students wishing to student teach in grades 7-8 should consult their advisor regarding the special restrictions which apply to assignments at these grade levels. Students enroll for 280:137 and 280:134 or 280:138 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: 210:122; 210:150; and a methods course in the subject area specialty.

Note: Licensure options in Iowa include K-6 and 7-12. Students may seek an optional endorsement in middle level education by completing (1) the middle level major, (2) an approved program leading to licensure in elementary or secondary education, and (3) a minimum of 6 hours of course work in the following areas:

Mathematics: to include algebra 6 hours
Science: to include life and physical 6 hours
Social Studies: to include American history, world history, and geography .6 hours
Language Arts: to include speech, composition, and grammar . 6 hours
Some or all of this course work may be completed as part of the General Education requirements. Students should contact their advisor, the College of Education Advising Center, and the undergraduate record analyst in the Registrar's Office to determine specific courses required for the endorsement.

## Llbrary Media Specialist MinorTeaching

Required:
Educational Technology: 240:150 ........................................ 3 hours
School Library Media: 350:115; 350:121; 350:132
(for K-6 endorsement) or 350:134
(for 7-12 endorsement); 350:223; 350:225; 350:250;
350:290 (3 hrs.).
21 hours
24 hours
Persons completing this program are eligible for either the K-6 or the 7-12 media specialist endorsement, 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.

## Educational Technology Minor

Required:
Educational Technology: 240:020 or 240:031; 240:030; 240:131; 240:139
.11-12 hours
Electives (must be approved by program advisor):
240:140; 240:153; 240:160; 240:170
6 hours
17-18 hours

## Media Minor

Required:
Educational Technology: 240:020 or 240:031; 240:131; 240:139; 240:150

11-12 hours
Electives in educational technology courses ........................ $\quad 7$ hours
18-19 hours

## Secondary Reading Minor-Teaching

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

[^3]
# Design, Family and Consumer Sciences 

## (College of Social and Behavioral Sciences)

http://csbsnt.csbs.uni.edu/dept/dfcs<br>H. Barnes, Head. B. Bass, W. Fleming, K. Kostelecky, K. Linney, A. Lymch, S. Mord, M. Story, M. Strauss, J. Wells, M. Widmer.

Note: The College of Social and Behavioral Sciences offers an Honors option to students majoring in one of the academic programs within the College. For further information regarding this Honors Program, please refer to page 57.

# Bachelor of Science Degree Program <br> <br> -- 130 semester hours 

 <br> <br> -- 130 semester hours}

## Dietetics Major <br> Required:

Accounting: 120:030, .3 hours

Management: 150:153.......................................................................... 3 hours
Design, Family and Consumer Sciences: 310:035; 310:037; 310:052; 310:106; 310:130; 310:131; 310:137; 310:141; 310:143; 310:145; 310:146; 310:149......................33-34 hours
Biology: 840:033; 840:101; 840:102...................................... 11 hours
Chemistry: 860:044 and 860:048, or only 860:070; 860:120; 860:123; 860:154. .15-18 hours 65-69 hours
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

## Family Services Major

Required:
Design, Family and Consumer Sciences: 310:052; 310:056; 310:057; 310:070; 310:153; 310:154; 310:155; 310:156; 310:157; 310:195 36 hours
One of the following ............................................................................... 3 hours Educational Psychology: 200:030.
Design, Family and Consumer Sciences: 310:055. Psychology. 400:120.
Political Science: 940:142 3 hours
Electives: 100-level courses (approved by department) in areas such as gerontology, health and family life education, child and adolescent development, human relationships, or cultural diversity. $\qquad$ 12 hours 54 hours
A minimum 2.40 grade point average (GPA) is required for declaration of this major. Students must maintain at least a 2.40 GPA in order to register for $310: 156,310: 157,310: 195$, and to graduate. Students must achieve a minimum of C - in all courses required for the major.

Departmental approval is required for declaration of the major and registration for $310: 155,310: 156,310: 157$, and $310: 195$. Procedures for approval are available in the departmental office.

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## Interior Design Major

## Required:

Marketing: 130:101 ..... 3 hours
Management: 150:080 ..... 3 hours
Design, Family and Consumer Sciences: 310:013; 310:061; 310:063; 310:064; 310:066; 310:067; 310:068; $310: 075 ; 310: 125 ; 310: 126 ; 310: 127 ; 310: 128 ; 310: 129$; 310:164 (3 hrs.); 310:184 (2 hrs.); 310:195 ..... 52 hours
Economics: 920:024 ..... 3 hours
One of the following ..... 3 hours
Accounting: 120:030.
Marketing: 130:106; 130:150; 130:153; 130:166; 130:178. Management: 150:153.
Textile and Apparel (TAPP) Major
Required:
Marketing: 130:101 ..... 3 hours
Design, Family and Consumer Sciences: 310:012;
310:013; 310:014; 310:020; 310:100; 310:114;310:115; 310:116; 310:121; 310:122; 310:123;310:124; 310:185; 310:19542 hours
Economics: 920:024 ..... 3 hours
One of the following ..... 3 hoursManagement: 150:080 (required for GeneralBusiness Concepts minor)
Computer Science: 810:021.
ree hours from the following: 310:010; 310:015;310:1843 hours
Two of the following ..... 6 hours
Accounting: 120:030.
Marketing: 130:106; 130:166; 130:191*.Management: 150:153.
60 hours
*Requires additional prerequisites.
Design, Family and Consumer Sciences Minor
Required:
Design, Family and Consumer Sciences: 310:010;310:030;310:052; 310:065; 310:070.13 hours
Electives in design, family and consumer sciences ..... 6 hours
19 hoursThis minor does not qualify one for teaching design, family andconsumer sciences.
Family Studies Minor
Required:
Design, Family and Consumer Sciences: 310:052; 310:053 or 310:057; 310:070 ..... 9 hours
Three of the following: $310: 152 ; 310: 153$; 310:154; 310:155 .....  hours
One of the following ..... 3 hoursEducational Psychology. 200:030.Design, Family and Consumer Sciences: 310:055.Psychology: 400:120.
*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.

## Textile and Apparel Minor

This minor is offered by the Textile and Apparel program housed in the Department of Design, Family and Consumer Sciences.

Required:<br>Design, Family and Consumer Sciences: 310:010; 310:013; 310:014; 310:020 11.hours Electives from Textile and Apparel program 2 hours 20 hours

## Program Certificate

For information on the following Program Certificate, refer to page 123 or contact the Department of Design, Family and Consumer Sciences.

## Certificate Program in Long Term Care

## Earth Science <br> (College of Natural Sciences)

## http://www.earth.uni.edu

J. Walters, Head. L. Brant, T. Cooney, A. Czarnetzki, K. De Nault, T. Hockey, M. Iqbal, S. Morgan.

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 also available as a liberal arts major.

# Bachelor of Science Degree Program <br> --130 semester hours 

## Geology Major

Required:
Geology: 870:031; 870:035; 870:125; 870:129; 870:130;
$870: 131 ; 870: 135 ; 870: 136 ; 870: 141 ; 870: 142$ or $870: 143$; 870:180 ( 2 hrs.); Summer Field Course ( 6 hrs.)* ............... 43 hours
Required Cognate Areas:
Mathematics: 800:060 and 800:061 ......................................... 8 hours
Mathematics/Computer Science: one of the following courses: 800:072; 800:092; 800:172; 810:030; 810:031; 810:032 or 810:035 $\qquad$ 3 hours
Chemistry: 860:044 and 860:048, or 860:070 .........................5-8 hours
Physics: 880:054 and 880:056 and one 100-level cognate** elective, or $880: 130$ and $880: 131$ 8-11 hours 67-73 hours
*Summer field course requirements to be met by credit earned at a field camp approved by the department.
**A 100-level course in a cognate area is required unless met by taking 880:131. 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.

## Bachelor of Arts Degree Programs

## Earth Science Major

Required:<br>Mathematics: 800:046 or 800:060 .4 hours<br>Chemistry: $860: 044$ or $860: 061$ .4 hours<br>Earth Science: 870:010*; 870:021; 870:031; 870:035 ............ 15 hours<br>Physics: 880:054 ................................................................... 4 hours<br>Electives in earth science: 100-level courses** ......................... 16 hours<br>43 hours<br>*870:010 must be taken for four semester hours of credit.<br>** 100 -level credits in earth science must include at least one course from each of astronomy, geology, and meteorology.

## Earth Science Major - Interpretive Naturalist Emphasis

This program is designed to prepare students with an Earth Science background to work as professional interpreters with park systems, nature centers, museums, and other areas requiring field skills in the natural sciences and natural history communication skills. The B.A. Earth Science Degree provides students a sound subject matter foundation in geology, meteorology, and astronomy. The emphasis enhances this background with biology and interpretive techniques.
Required:
Mathematics: 800:046 or 800:060 ..... 4 hours
Chemistry: 860:044 or 860:061 ..... 4 hours
Earth Science: 870:010*; 870:021; 870:031; 870:035 ..... 15 hours
Electives in Earth Science: 100-level** ..... 11 hours
Physics: 880:054 ..... 4 hours
Biology: 840:051; 840:052; 840:103 ..... 11 hours
(see page 69) ..... 20 hours
69 hours
*870:010 must be taken for four hours of credit.
**Electives must include one course from each of astronomy, geology, and meteorology.
Earth Science Major - Teaching
Required:
Science and Science Education: 820:190; 820:194; 820:196 ..... 5 hours
Chemistry: 860:044 and 860:048, or 860:070 ..... 5-8 hours
Earth Science: 870:010*; 870:021; 870:031; 870:035; 870:121 ..... 19 hours
Physics: 880:054; 880:056 ..... 8 hours
Electives in earth science: 100 -level courses(excluding 870:189).7 hours44-47 hours
*870:010 must be taken for four semester hours of credit.

Undergraduate Program Requirements

## Earth Science/Economics

## Geology Major With Environmental Science Emphasis

Required:
Mathematics: one of the following courses: 800:046; 800:060; 800:072; 800:092; or 800:172 ........................... $3-4$ hours
Chemistry: 860:044 and 860:048, or 860:070 ................... $5-8$ hours
Earth Science: 870:031; 870:035; 870:129; 870:130; 870:131; 870:135; 870:136
.24 hours
Physics: 880:054 and 880:056, or $880: 130$ and $880: 131$........ 8 hours

Required Environmental Science Core:
Environmental Science: 830:130................................................... 3 hours
Biology: 840:051; 840:052 ...............o....................................... 8 hours

Two additional environmental courses as appropriate
to the student's program and approved by the
advisor and department head........................................-8 hours
Summer Field Course*
69-75 hours
*Summer field course requirements to be met by credit earned at field camp approved by the department.

## Geology Major

Required:
Mathematics: one of the following courses: 800:046;

Chemistry: 860:044 and 860:048, or 860:070 ..o..................5-8 hours
Earth Science: 870:031;870:035;870:129; 870:130;
$\quad 870: 131 ; 870: 135 ; 870: 136$................................................. 24 hours
Physics: 880:054 and 880:056, or 880:130 and 880:131 ....... 8 hours


50-54 hours
*Summer field course requirements to be met by credit earned at field camp approved by the department.
Recommended general electives - Mathematics: 800:060; 800:061.

## Astronomy Minor

Required:
Mathematics: 800:060; 800:061............................................. 8 hours
Earth Science: $870: 010^{*} ; 870: 151 ; 870: 152$ or $870: 153$; 870:154
.10 hours

26 hours
*870:010 must be taken for four semester hours of credit.

## Earth Science Minor

Required: courses in earth science 20 hours

## Earth Science Minor-Teaching

Required:

Earth Science: $870: 010^{*} ; 870: 021 ; 870: 022 ; 870: 031$; 870:035

16 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.
*870:010 must be taken for four semester hours of credit.

## Geology Minor

Required:
Chemistry: 860:044 $\qquad$ .
Earth Science: 870:031; 870:035; 870:130;870:131; $870: 125$ or $870: 136 ; 870: 129$ or $870: 141$; 4-5 hours of 100 -level electives in geology.
24 hours
28 hours

## Meteorology Minor

Required:


Earth Science: $870: 021 ; 870: 121 ; 870: 122 ; 870: 123 . . . . . . . . . . . . . ~ 14$ hours
Physics: 880:054 ......o.e.................................................................. 4 hours
Geography: 970:127 or 970:164 ......................................... 3 hours
29 hours
Recommended general electives - Mathematics: 800:061; 800:062

## Economics

## (College of Business Administration)

## http://www.cba.uni.edu/economics

F. Abraham, Head. M. Alam, K. Brown, D. Hakes, R. Krieg, B. Mardis, K. McCormick, C. Mitchell, J. Rives, S. Thorpe, B. Uyar.

1) To graduate with a major in economics a student must:
a) complete 920:053, 920:054, 920:103, and 920:104 with at least a Cin each course whether taken at UNI or at an institution from which transfer credit for these courses is accepted; and
b) earn a 2.50 grade point average for all 920:x0xx courses taken at UNI, except 920:020, 920:024, and 920:070.
2) 920:020 and 920:070 count toward an economics major only in the business emphasis and do not count toward the minor.
3) $920: 024$ does not count toward the economics major or minor.
4) $920: 053$ and $920: 054$ are minimum prerequisites for all $100(\mathrm{~g})$ courses.
5) It is recommended that $920: 103$ and $920: 104$ be taken before other advanced courses in economics.
6) Not more than one emphasis may be declared in economics.

## Bachelor of Arts Degree Programs

## Economics Major

Required:
Economics: 920:053; 920:054; 920:103;920:104; 920:169*; 920:181
Emphasis requirements (students choose one area of emphasis)

# Undergraduate Program Requirements Economics/Educational Leadership, Counseling, and Postsecondary Education/ Educational Psychology and Foundations 

## Emphases:

1. General Economics ( 18 additional hours) Electives: 100-level Economics courses $\qquad$ 18 hours
2. Quantitative Techniques (33 additional hours)

Required:
 Mathematics: 800:060; 800:061; 800:062; 800:050 or 800:076 15 hours
Electives: 100-level Economics courses ............................... 15 hours 33 hours
3. Business Analysis (39 additional hours)

Students who select this emphasis must satisfy the College of Business Administration (CBA) admission requirements before they can officially declare their major. A copy of the Admission, Retention, and Graduation Policy may be obtained from the Advising and Student Services Office in the College of Business Administration. Prior to completion of the admission requirements, students may sign an intent to major in Economics/Business Anatysis and be classified as a prospective (pre) major. Pre-Economics/Business Analysis majors may enroll in lower division (below 100) business courses only. Enrollment in upper division ( 100 -level) business courses requires satisfactory completion of the CBA admission requirements and any course prerequisites.

Economics/Business Analysis majors may declare a double major, and/or major and minor within the College of Business Administration, subject to the regulations of those CBA departments affected. Economics/Business Analysis majors minoring within the CBA must select minors designated for business majors.

To graduate with an Economics/Business Analysis major from the College of Business Administration, a student must earn at least $50 \%$ of the business credit hours required for the major at UNI. Students must take at least $50 \%$ of the course work required for the degree outside the College of Business Administration. Up to nine hours of economics (excluding 920:020), and six hours of statistics may be counted as outside the College of Business Administration. A student must also complete 920:053, 920:054, 920:103, and 920:104 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; must earn an overall 2.20 grade point average in 120:00x, 130:00x, 150:xx夭, 160:00x, and 920:xxx courses taken at UNI; and earn a 2.50 or better, in all $920: x x x$ courses taken at UNI excluding 920:020, 920:024, and 920:070.

Required Business Core:
Accounting: 120:030; 120:031 s.ono.o.o......no.............................. 6 hours

Management: 150:080; 150:100; 150:153; 150:154;150;175 .. 15 hours


Electives: 100-level economics courses .manomonomono................. 6 hours
39 hours
4. Community Economic Development Emphasis
(24 additional hours)
Required:
Economics: 920:125; 920:148; 920:177 (3 hrs.) .mo................ 9 hours

Management: 150:080............................................................. 3 hours

Electives ( 6 hours from the following) .nomonomenomenomonnonomenem 6 hours
Accounting: 120:030.
Economics: 920:113;920:117;920:123.
Finance: 160:140.
Geography: 970:121; 970:164.
Political Science: 940:132; 940:148.
*These courses require an additional prerequisite which will be met by taking 800:072, which will also satisfy Category 5C of the General Education Program.

## Economics Minor-Liberal Arts

Required:
Economics: 920:053; 920:054; 920:103; 920:104.................. 12 hours
Electives: 100-level economics courses
(920:103 and 920:104 recommended to be taken

18 hours
Available to all UNI majors, except Economics majors.
Note: 920:053 and 920:054 are prerequisites for all $100(\mathrm{~g})$ economics courses.

## Economics Minor-Teaching

Required:

Economics: 920:053; 920:054; 920:103; 920:104.................. 12 hours
Electives: 100-level economics courses
(920:103 and 920:104 recommended to be taken
before other advanced courses in economics)
12 hours
28 hours
Note: 920:053 and 920:054 are prerequisites for all $100(\mathrm{~g})$ economics courses.

# Educational Leadership, Counseling, and Postsecondary Education 

## (College of Education)

## http://www.uni.edu/coe/eac

M. Waggoner, Head. C. Bair, R. Clemente, R. Decker, D. Else, E. Griffith, D. Jackson, V. Jackson, L. Keig, W. Murgatroyd, G. Perreault, V. Robinson, A. Vernon.

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

# Educational Psychology and Foundations 

## (College of Education)

## http://www.uni.edu/coe/epf

B. Wilson, Head. R. Al-Mabuk, T. Berg, R. Boody, L. Brown, A. DeBruin-Parecki, D. Deemer, S. Fortgang, S. Freedman, S. Gable, A. Gabriele, J. Henning, M. Heston, A. Iverson, E. Joram, C. Means, C. Montecinos, B. Reppas, B. Rogers, D. Salih, D. Schmits, R. Scott, J. Smith.

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.

Undergraduate Program Requirements English Language and Literature

# English Language and Literature 

## (College of Humanities and Fine Arts)

## http://www.uni.edu/english

J. Copeland, Head. K. Baughman, W. Broz, G. Cawelti, R. Fehlman, S. Gaies, S. Gladden, V. Gotera, J. HiDuke, J. Husband, M. Janopoulos, N. Kaylor, J. Klinkowitz, B. Lounsberry, C. MacGillivray, A. Meier, J. Milambiling, P. Mvuyekure, A. Myles, N. Price, J. Robbins, C. Roberts, S. Rochette-Crawley, C. Shields, J. Swan, J. Swope, G. Tracey, K. Tracey, R. Utz, J. Wang, W. Williamson.

## Bachelor of Arts Degree Programs

## English Major

Required:
English: 620:034; 620:040; 620:048; 620:053 .......................... 12 hours
One of the following courses................................................ 3 hours
English: 620:103; 620:104; 620:105; 620:163; 620:174; 620:175; or
Journalism: 48J:171.
TESOL/Applied Linguistics: 630:125 or 630:130 3 hours
Electives in English literature, at least two courses from each group .18 hours
*Within each group, other appropriate topics may be offered in sections of 620:159, 620:186, and 620:188.
*Group A. Literature in English to 1800: 620:113; 620:116; 620:117; 620:144; 620:147; 620:148.
*Group B. Literature in English since 1800: 620:115; 620:118; 620:119; 620:120; 620:121; 620:123; 620:124; 620:126; 620:134; 620:153; 620:156.
*Group C. Literary Theory, Film, Cross-Cultural: 620:128; 620:139; 620:142; 620:155; 620:157; 620:158; 620:161; 620:172; 620:182; 620:184; 620:188.
Electives in English language, literature or writing ....................... 6 hours 42 hours


## English Major-Teaching <br> Required:

English: $620: 034 ; 620: 040 ; 620: 048 ; 620: 053$.............................. 12 hours

English: 620:103; 620:104; 620:105; 620:163 or Journalism: 48J:171.
TESOL/Applied Linguistics: 630:125 or 630:130 ............o.o.o.o... 3 hours
 TESOL/Applied Linguistics: 630:143; 630:190; 630:195.
Reading: 230:130 . 3 hours

English: 620:165; 620:190; 620:191; 620:193............................ 10 hours
Electives in English literature, one course from each group........... 9 hours
*Within each group, other appropriate topics may be
offered in sections of $620: 159,620: 186$, and $620: 188$.
*Group A. Literature in English to 1800: 620:113; 620:116; 620:117; 620:144; 620:147; 620:148.
*Group B. Literature in English since 1800: $620: 115 ; 620: 118 ; 620: 119 ; 620: 120 ; 620: 121 ; 620: 123$; 620:124; 620:126; 620:134; 620:153; 620:156.
${ }^{*}$ Group C. Literary Theory, Film, Cross-Cultural: 620:128; 620:139; 620:142; 620:155; 620:157; 620:158; 620:161; 620:172; 620:182; 620:184; 620:188.
Electives in English language, literature, or writing ...o.o................. 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 620:190.

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

## Required:

English: 620:034; 620:048; 620:053 $\qquad$ 9 hours One of the following: $620: 103 ; 620: 104 ; 620: 105$; 620:193 3 hours
TESOL/Applied Linguistics: 630:125 or 630:130; 630:135 or 630:160; 630:154; 630:156; 630:165; 630:192; 630:193; 630:194; 630:196 .27 hours Electives in literature or TESOL/Applied Linguistics ..o.o.o.o...... 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 al language course or by passing a proficiency examination.

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

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: 620:034; 620:048; 620:053 9 hours
One of the following: $620: 103 ; 620: 104 ; 620: 105$; 620:193 .3 hours
TESOLApplied Linguistics: 630:125 or 630:130;
630:135 or $630: 160 ; 630: 154 ; 630: 156 ; 630: 165$;
630:192; 630:193; 630:194; 630:196 $\qquad$ .27 hours
Electives in literature or TESOL/Applied Linguistics ...........o.... 3 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 $\mathbf{C}$ grade in the second semester of a language course or by passing a proficiency examination.
English Minor
Choose ONE option -- 24 hours

1. Literary Studies Option
Required:
English: 620:034; 620:040; 620:048; 620:053. 12 hours
TESOL/Applied Linguistics: 630:125 or 630:130 ..... 3 hours
Electives in English literature, one course from each group ... 9 hours*Within each group, other appropriate topics may beoffered in sections of 620:159, 620:186, 620:188.*Group A. Literature in English to 1800: 620:113;620:116; 620:117; 620:144; 620:147; 620:148.
*Group B. Literature in English since 1800: 620:115;620:118; 620:119; 620:120; 620:121; 620:123;620:124; 620:126; 620:134; 620:153; 620:156.
*Group C. Literary Theory, Film, Cross-Cultural:620:128; 620:139; 620:142; 620:155; 620:157;$620: 158 ; 620: 161 ; 620: 172 ; 620: 182 ; 620: 184 ; 620: 188$.24 hours
2. Film Studies Option
Required:
English: 620:035; 620:139; 620:142; 620:182 ..... 12 hours
English electives -- literature in English ..... 3-12 hours
Electives in film or media production from departments other than English* ..... 0-9 hours
Elective in a studio or performance course in art, communication studies, music or theatre* .....  0 - 3 hours
24 hours
*Requires approval of English Department advisor.
English Minor-Teaching
Required:
English: 620:034; 620:040; 620:048; 620:053 ..... 12 hours
TESOL/Applied Linguistics: 630:130 ..... 3 hours
Reading: 230:130 ..... 3 hours
Communication: 48C:001 ..... 3 hours
English Language and Literature: 620:165; 620:190; 620:193 ..... 9 hours
Electives in 100-level literature ..... 3 hoursA minimum cumulative grade point average of 2.40 in courses takento complete this minor is required.
Teaching English to Speakers of Other Languages (TESOL) Minor
Required:
TESOL/Applied Linguistics: 630:125 or 630:130; 630:135 or 630:160; 630:154; 630:165; 630:192; 630:193; 630:194; 630:196 ..... 24 hours

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

## Required:

TESOL/Applied Linguistics: 630:125 or 630:130; 630:135 or $630: 160 ; 630: 154 ; 630: 165 ; 630: 192 ; 630: 193$; 630:194; 630:196
. 24 hours


#### Abstract

Note: To earn the ESL K-12 endorsement on an lowa teaching license, student teaching in an ESL classroom at both the K-6 and 7-12 levels is required.


## Writing Minor

Required:
Choose ONE of the following options:

1. Creative Writing Option
English:
620:031 or 620:034 .....  3 hours
620:070 and/or 620:071 ..... 3-6 hours
620:108 and/or 620:109 ..... 3-6 hours
620:174 and/or 620:175 ..... 3-6 hours
Elective in a studio or performance course in art, music, or theatre ..... 0-3 hours
Elective(s) in creative writing and/or literature, including literature in a language other than English ..... 0-6 hours
18 hours
2. Professional Writing Option
English: 620:015; 620:104; 620:105; 620:107; 620:177; 620:179 or 620:197 ..... 18 hours
English/Modern Language Programs

## TESOL/Modern Language MajorTeaching

## (Extended Program)

This major requires a minimum of 139 total hours to graduate. 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: 620:034; one of the following -- 620:103;620:104; 620:105; 620:1936 hours
TESOL/Applied Linguistics: 630:125 or 630:130; $630: 135$ or $630: 160 ; 630: 154 ; 630: 165 ; 630: 192$; 630:193; 630:194; 630:196 .24 hours
30 hours from one of the following language emphases. ..... 30 hours60 hours

## Undergraduate Program Requirements

 English/Modern Language Programs/Finance
## Emphases--

## French:

Languages: 700:190.
French: 720:011; 720:051 (3 hrs.); 720:061 (2 hrs.); 720:101; $720: 104 ; 720: 108 ; 720: 124$ or $720: 125$; at least one French literature course; and electives in French more advanced than 720:002 to make 30 hours.

## German:

Languages: 700:190.
German: 740:011; 740:012; 740:013; 740:014; 740:101 (2-3 hrs.); 740:103 (2-3 hrs.); 740:104 or 740:031; 740:123 or 740:150; and electives in German more advanced than 740:002 and 740:004 to make 30 hours.

## Russian:

Languages: 700:190.
Russian: 770:011; 770:012; 770:013; 770:014; 770:031 or 770:102 or 770:104; 770:101; 770:103; and electives in Russian more advanced than 770:002 and 770:004 to make 30 hours.

## Spanish:

Languages: 700:190.
Spanish: 780:052 (2-3 hrs.); 780:062 (2-3 hrs.); 780:101; 780:104; 780:107 ( 2 hrs.); 780:120 or 780:123 or 780:152 ( 3 hrs .); 780:145 or 780:147; and electives in Spanish more advanced than 780:002 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: 620:161; a 100-level course in English literature mos hours

18 hours
*For Foreign Language Majors--
Electives in 100-level foreign language literature courses ( 6 hours).
English literature at the 100 -level (excluding 620:144, 620:147, 620:148) - ( 6 hours).
*For Non-Foreign Language Majors--
French: 720:104; or
German: 740:104; or
Spanish: 780:104.
Electives in 100-level foreign language literature courses (9 hours).

## Finance

## (College of Business Administration)

http://www.cba.uni.edu/finance

R. Followill, Head. L. Bowlin, A. Cax, H. Isakson, G. Mills, A. Rappaport, E. St. Pierre, A. Thompson, R. Wyatt, M. Zaman.

Note: Students majoring in Finance and Real Estate must satisfy the College of Business Administration (CBA) admission requirements before they can officially declare their major. A copy of the Admission, Retention, and Graduation Policy may be obtained from the Advising and Student Services Office in the College of Business Administration. Prior to completion of the admission requirements, students may sign an intent to major in Finance or Real Estate and be classified as a prospective (pre) major. Pre-Finance and Pre-Real Estate majors may enroll in lower division (below 100) business courses only. Enrollment in upper division (100-level) business courses requires satisfactory completion of the CBA admission requirements and any course prerequisites.

Finance and Real Estate majors may declare a double major, and/or major and minor within the College of Business Administration, subject to the approval of the other CBA departments involved. Finance and Real Estate majors minoring within the CBA must select minors designated for business majors. Finance majors cannot minor in Financial Services, and Real Estate majors cannot minor in Real Estate. However, Finance majors may double major or minor in Real Estate, and Real Estate majors may double major in Finance or minor in Financial Services.

To graduate with a major in Finance or Real Estate from the College of Business Administration, a student must earn at least $50 \%$ of the business credit hours required for the major at UNI. Students must take at least $50 \%$ of the course work required for the degree outside the College of Business Administration. Up to nine hours of economics (excluding 920:020), and six hours of statistics may be counted as outside the College of Business Administration. A student must also earn a 2.20 cumulative grade point average at UNI; and must earn an overall 2.20 grade point average in 120:00x, 130:0xx, 150:xxx, 160:00x, and 920:xax courses taken at UNI.

# Bachelor of Arts Degree Programs 

## Finance Major

Required Business Core:


Management: 150:080; 150:100; 150:153; 150:154;
150:175
. 15 hours

Economics: 920:020; 920:053; 920:054; 920:070.................. 12 hours
Required Finance: 160:150; 160:152; 160:155; 160:161 ............. 12 hours

Finance: $160: 141 ; 160: 154 ; 160: 156 ; 160: 158 ; 160: 162$; 160:163.
Economics: 920:113.
*In addition to the required 57 hours, 920:020 and 920:070 have as a prerequisite 800:072 or 800:092, either of which will satisfy Category 5C of the General Education Program.
Real Estate Major
Required Business Core:
Accounting: 120:030; 120:031. ..... 6 hours
Marketing: 130:101 ..... 3 hours
Management: $150: 080 ; 150: 100 ; 150: 153 ; 150: 154$; 150:175 ..... 15 hours
Finance: 160:151 ..... 3 hours
Economics: 920:020; 920:053; 920:054; 920:070. ..... 12 hours
Required Real Estate and Finance: 160:140; 160:141; 160:142; 160:143; 160:155; 160:161 . 18 hours57 hours*
*In addition to the required 57 hours, 920:020 and 920:070 have as aprerequisite 800:072 or 800:092, either of which will satisfy Category 5Cof the General Education Program.
Financial Services Minor-Business
Required:
Finance: $160: 055 ; 160: 140 ; 160: 152 ; 160: 162$ ..... 12 hours
Electives from the following ..... 3 hours
Accounting: 120:129.
Economics: 920:113; 920:136.
Marketing: 130:153.
$\overline{15}$ hoursAvailable to majors in: Accounting, Business Teaching, Economics-Business Analysis Emphasis, Management, Management InformationSystems, Marketing, and Real Estate.
Financial Services Minor
Required:
Marketing. 130:101 ..... 3 hours
Management: 150:100 ..... 3 hours
Finance: 160:055; $160: 140 ; 160: 162$ ..... 2 hours
15 hours

NOT available to majors in: Accounting, Business Teaching, Economics-Business Analysis Emphasis, Finance, Management, Management Information Systems, Marketing, and Real Estate.
*In addition to the required 15 hours, 130:101 has a prerequisite of either 920:024 or 920:053. 920:024 or both 920:053 and 920:054 will satisfy Category 4B of the General Education Program.

## Real Estate Minor-Business

Required:
Finance: $160: 140 ; 160: 141 ; 160: 142 ; 160: 143$...................... 12 hours

Marketing: 130:106; 130:153; 130:178.
Finance: 160:150; 160:163.
Industrial Technology: 330:018.
Economics: 920:148.
Geography: 970:104;970:121;970:168.
Available to majors in: Accounting, Business Teaching, EconomicsBusiness Analysis Emphasis, Finance, Management, Management Information Systems, and Marketing.

## Real Estate Minor

Required:
Finance: $160: 140 ; 160: 142 ; 160: 143$....................................... 9 hours
Marketing: 130:101 ................................................................ 3 hours

Marketing: 130:106; 130:153; 130:178.
Finance: $160: 141^{* *} ; 160: 150^{* *} ; 160: 151^{* *} ; 160: 163^{* *}$.
Industrial Technology: 330:018.
Economics: 920:148**.
Geography: 970:104; 970:121; 970:168**.
NOT available to majors in: Accounting, Business Teaching, Economics-Business Analysis Emphasis, Finance, Management, Management Information Systems, Marketing, and Real Estate.
*In addition to the required 15 hours, $130: 101$ has a prerequisite of either 920:024 or 920:053. 920:024 or both 920:053 and 920:054 will satisfy Category 4B of the General Education Program.
**These courses require additional prerequisites.

## Geography

## (College of Social and Behavioral Sciences)

## http://csbsnt.csbs.uni.edu/dept/geography

P. Suckling, Head. C. Austin, R. Chung, D. Dahms, M. Emch, T. Fogarty, J. Fryman, D. May, T. Strauss, K. Weller.

Note: The College of Social and Behavioral Sciences offers an Honors option to students majoring in one of the academic programs within the College. For further information regarding this Honors Program, please refer to page 57.

## Bachelor of Arts Degree Programs

## Geography Major

Required:
Geography. 970:010 or 970:040; 970:026 (4 hr. version);
$\qquad$
One of the following .................................................................... 3 hours
Mathematics: 800:072 or 800:172.
Economics: 920:070.
Sociology: 980:080.
Electives in geography ................................................................................ hours*
37 hours
Note: For the geography major, either 970:010 or 970:040 shall be taken; the course not selected may not be counted toward 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 970:177 or 970:179 will count toward electives for the major.

## Geography Major With Environmental Emphasis

Required Geography core: Geography: 970:010 or 970:040; 970:026 (4 hr. version); 970:061; 970:180
.13 hours

Mathematics: 800:072 or 800:172
Economics: 920:070
Sociology: 980:080
Physical environment/techniques requirement:
Geography: 970:028; 970:163 or 970:164 or 970:173 ......6 hours

Earth Science: 870:141.
Geography: 970:126;970:127;970:129;970:131; 970:137; 970:144.
Human environment interaction requirement:

One of the following................................................................ 3 hours
Philosophy: 650:175.
Economics: 920:123*.
Political Science: 940:155.
Geography: 970:128.
Sociology: 980:148.
Geography electives (at the 100-level).....o.o.o.o.o............................ 3 hours 40 hours
*This course requires 920:053 and 920:054 as prerequisites. Completion of both 920:053 and 920:054 will satisfy Category 4B of the General Education Program.

## Geography Major-Teaching

## (Extended Program)

The Geography Major in Teaching requires a minimum of 131-144 total hours to graduate.

## Required:

Social Science: 900:190; 900:191 ...................................... 4 hours
Geography: 970:010; $970: 026$ ( 4 hr . version); 970:040;
970:061; 970:141 or 970:142; 970:171 or 970:180 ........... 19 hours
Electives in geography 15 hours* 38 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 970:177 or 970:179 will count toward electives for the major.

## Geography Minor-Liberal Arts

Required:
Geography: 970:010 or 970:040; 970:026 ( 4 hr . version) ...... 7 hours

19 hours
*Only 3 hours of credit in 970:177 or 970:179 will count toward electives for the minor.
Geography Minor-Teaching
Required:
Social Science: 900:190; 900:191 ....................................0-4 hours
Geography: 970:010 or 970:040; 970:026 ( 4 hr . version);

Electives in geography......................................................... $\frac{15}{}$ hours*
25-29 hours
*Only 3 hours of credit in 970:177 or 970:179 will count toward electives for the minor. Students must add 900:190 and 900:191 to the above requirements, unless already taken in the major.

## Program Certificate

For information on the following Program Certificate, see page 123 or contact the department office.

Cartography and Geographic Information Systems (GIS) Certificate

# School of Health, Physical Education, and Leisure Services 

## (College of Education)

http://www.uni.edu/coe/hpels<br>C. Edginton, Director. I. Ahrabi-Fard, D. Briggs, C. Cooper, D. Cryer, T. Davis, D. Depken, F. Dolgener, K. Finn, J. Gassman, P. Geadelman, J. Gryywacz, J. Hall, N. Hamilton, M. Hart, G. Henry, L. Hensley, C. Herndon, S. Huddleston, S. Hudson, J. Hurley, J. Jiang, S. Joslym, K. Kerr, S. Koch, M. Mack, D. Magnuson, R. Marston, D. McDonald, C. Okafor, C. Phillips, D. Remmert, G. Sandvik, L. Stringer, D. Thompson, M. Toerner, R. Williams, J. Wilson, M. Yehieli, C. Zeman.

## Bachelor of Arts Degree

## Programs

## Athletic Training Major

The School of Health, Physical Education and Leisure Services offers a major in Athletic Training. The major is designed to prepare students to become athletic training professionals. It prepares students for the National Athletic Training Board of Certification Examination as well as eligibility for an Athletic Training License in the State of Iowa. The curriculum is based upon cognitive and psychomotor learning experiences. The athletic training education program is seeking accreditation by the Commission on Accreditation of Allied Health Education Programs and is presently in the JRC-AT candidacy program.

Admission into the athletic training program is competitive and is based upon cumulative grade point average, prerequisite course grades, application materials, recommendations, and interview results. Students must have a minimum cumulative grade point average of 2.50 and a minimum of 50 hours of observation of a Certified Athletic Trainer in order to apply. Students must apply for admission by March 1 of each year and may apply while enrolled in prerequisite courses. Notification of admittance will be made at the end of spring semester. Once notified of admittance into the athletic training program, students must provide physician certification that they are physically capable of handling the duties required of an athetic training student. In addition, a two-year (four semesters) minimum time period must be allowed for the completion of the required 800 clinical hours once the student is admitted into the program. All additional requirements and information are available at the athletic training program office.

Undergraduate Program Requirements School of Health, Physical Education, and Leisure Services
Prerequisites:
Athletic Training: 42T:023; 42T:024 (or the equivalent) ...... 3 hoursRequired core:
Biology: 840:101; 840:102

$\qquad$
8 hours
Physical Education: 420:151; 420:153; 420:154; 420:186
( 2 hrs . Studies in Sport Nutrition)
.10 hours
Health, Physical Education, and Leisure Services:
440:010 Personal Wellness of the General Education
Sequence (This course is also part of the athletic
training core to satisfy the Health content
requirement within the curriculum)
$\qquad$ 3 hours
Athletic Training: 42T:033; 42T:110; 42T:111; 42T:134;
42T:135; 42T:137; 42T:138; 42T:143; 42T:144;
42T:157; 42T:158; 42T:162; 42T:170;
42T:180 (2 hrs. Athletic Training Seminar)
$\qquad$ 3 hours 47 hours

## Health Education Major-Teaching

Current First Aid and CPR certification is required of all major students prior to student teaching.

Required:
Educational Psychology: 200:118; 200:151............................ 6 hours
Measurement and Research: 250:180 or
Mathematics: 800:072
3 hours
Design, Family and Consumer Sciences: 310:032; 310:057 ..5 hours
Psychology: 400:170 ................................................................ 3 hours
Health Promotion and Education: 410:005; 410:140;
$410: 144 ; 410: 153 ; 410: 160 ; 410: 163 ; 410: 164 ; 410: 178 . . .19$ hours
Physical Education: 420:050 .................................................. 3 hours
Electives to be chosen from the following list .................................... hours
42 hours
Educational Psychology: 200:116.
Measurement and Research: 250:181.
Design, Family and Consumer Sciences: 310:052; 310:053 310:055; 310:155; 310:157.
Health Promotion and Education: 410:020; 410:120; 410:146; 410:147; 410:155; 410:162.
Physical Education: 420:153.
Religion: 640:194 or
Philosophy: 650:194.

## Health Promotion Major

Required:

Health Promotion and Education: 410:005; 410:110; 410:145; 410:150; 410:153; 410:156; 410:160; 410:163; 410:164; 410:168; 410:176 ................................ 36 hours
Physical Education: 420:050 .......................................................... 3 hours
Leisure Services: 430:020........................................................ 3 hours
Minimum 10 hours from one of the following option plans .... 10 hours 55 hours

## Option 1 - Wellness

Required: 420:153; 420:156.
Plus four hours from the following courses:
Marketing: 130:178.
Design, Family and Consumer Sciences: 310:032 or 310:037.
Psychology: 400:154.
Health Promotion and Education: 410:155; 410:162; 410:178.
Physical Education: 420:142.

## Option 2 - Gerontology

Required: 410:125.
Plus seven hours from the following courses:
Design, Family and Consumer Sciences: 310:130; 310:154.
Psychology: 400:173.
Health Promotion and Education: 410:120; 410:178.
Physical Education: 420:020.
Leisure Services: 430:166.
Social Work: 450:173.
Philosophy and Religion: 640:194 or 650:194.
Philosophy: 650:173.
Sociology: 980:125.

## Option 3-Women's Health

Required: 410:020; 410:162.
Plus six hours from the following courses:
Design, Family and Consumer Sciences: 310:057; 310:130 310:152; 310:155; 310:157.
Psychology: 400:110.
Health Promotion and Education: 410:128;410:138;410:178.
Leisure Services: 430:164.
Communication Studies: 48C:142; 48C:153.
Social Science: 900:020; 900:050.
History: 960:146.
Sociology: 980:171.
Anthropology: 990:167.
Option 4 - General
Accounting: 120:030.
Marketing: 130:178.
Design, Family and Consumer Sciences: 310:037; 310:052; 310:055; 310:057; 310:130; 310:131; 310:149; 310:153 310:155; 310:177.
Psychology: 400:123; 400:154; 400:158; 400:160; 400:161; 400:170; 400:173.
Health Promotion and Education: 410:011;410:015; 410:020; $410: 120 ; 410: 125 ; 410: 138 ; 410: 146 ; 410: 155 ; 410: 162 ; 410: 178$.
Physical Education: 420:153; $420: 156$.
Social Work: 450:102; 450:121; 450:164; 450:171; 450:173; 450:174.
Communication Studies: 48C:138.
Religion and Philosophy: 640:194 or $\mathbf{6 5 0 : 1 9 4 ;} \mathbf{6 4 0 : 1 7 3}$ or $650: 173$.
Philosophy: 650:142.
Social Science: 900:050; 900:080.
Sociology: 980:060; 980:105; 980:169.
Anthropology: 990:168; 990:169.

## Option 5 - Global Health

Required:
Health Promotion and Education: 410:138; 410:147; 410:161; 410:197.
A student declaring a major in Health Promotion will be required to have sophomore standing and a minimum GPA of 2.50 for all courses whether taken at UNI or transferred from other institutions. A minimum 2.50 GPA will be required for admission to $410: 168$, Field Experience in Health Promotion. To graduate with a major in Health Promotion a student must have a cumulative GPA of 2.50 in course work taken at UNI in the Health Promotion Major.
*920:024 or 920:053 is a prerequisite to 130:101. 920:024 will satisfy Category 4B of the General Education Program.

Undergraduate Program Requirements
School of Health, Physical Education, and Leisure Services

## Health Education Minor-Teaching

Current First Aid and CPR certification is required of all minors prior to student teaching.
Required:
Educational Psychology: 200:118 . 3 hours
Design, Family and Consumer Sciences: 310:032; 310:057 .... 5 hours
Psychology: 400:170 .....  3 hours
Health Promotion and Education: 410:135
(for K-6 endorsement) or 410:140 (for 7-12 endorsement); 410:144; 410:153; 410:160; 410:163; 410:164 ..... 15 hours

## Health Promotion Minor

Required:
Marketing: 130:101* ..... 3 hours
Health Promotion and Education: 410:005; 410:110; 410:150; 410:153; 410:156; 410:160; 410:163; 410:164; 410:176 ..... 21 hours
24 hours
*920:024 or 920:053 is a prerequisite to 130:101. 920:024 will satisfy Category 4B of the General Education Program.

## Physical Education Major

Completion of this program prepares students for careers or further study in physical education or related areas but not for endorsement in K -12 school settings. To declare this major a student must file an approved program of study with her/his advisor.

## Required core:

Physical Education: 420:018; 420:050; 420:053; 420:056;
420:121; 420:151; 420:153; 420:162 .............................. 21 hours
Required Electives:
Physical Education
.9 hours
minimum of 6 hours from 420:191; 420:193; 420:194; 420:197
Electives:
Selected to complement student's interest with the approval of the advisor; 6 hours must be at the 100 -level..... 2 hours 39 hours

## Physical Education Major-Teaching

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

Student teachers must have current First Aid and CPR certification.
Disciplinary Knowledge core:
Physical Education: 420:018; 420:050; 420:053; 420:056; 420:121; 420:151; 420:153; 420:162 .............................. 21 hours Pedagogical Content:

Physical Education: 420:152; 420:173; 420:174; 420:176 ........ 14 hours
Skill and Activity Content:
Physical Education: 420:011; 420:013; 420:015; 420:016;
420:017; 420:021 ........................................................ 10 hours 45 hours
*Students with a major in Physical Education-Teaching will substitute 420:152 for 220:150 and 420:174 for 250:150 in the Professional Education Program.

## Coaching Minor

Students who complete this program 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: 200:030 3 hours
Physical Education: 420:018; 420:019; 420:024; 420:025; 420:118; 420:122; 420:127 .13 hours
Electives from the following.....................................................4-6 hours
Physical Education: 420:101; 420:102; 420:104; 420:105; 420:107; 420:108; 420:109; 420:110; 420:111; 420:112; 420:113.

20-22 hours
Note: Students in teaching majors will complete 200:030 within the Professional Education Program. 420:118 (Practicum) may be completed during student teaching.

## Dance Minor

Required activities:
Physical Education: 420:A07 Beginning Ballet or 420:A52 Intermediate Ballet; 420:A13 Beginning Jazz or 420:A57 Intermediate Jazz; 420:A08 Beginning Ballroom Dance or 420:A09 Intermediate Ballroom Dance; 420:A11 Beginning Modern Dance or 420:A12 Intermediate Modern Dance; 420:A10 Beginning International Folk Dance; 420:A64 Tap Dance; 420:013 Folk, Square, Ballroom Dance; 420:013 Rhythm in Movement, Sport and Dance............ 8 hours Required Theory:

Physical Education: 420:024; 420:034................................... 6 hours
Electives in Dance:
Physical Education: 420:031; 420:132; 420:135; 420:140;
420:146; 420:168............................................................... 6 hours

Selected to complement student's interest with the approval of the dance minor advisor from the following areas:
Art, Communication Studies, Design, Family and Consumer Sciences, Educational Technology, Health, Humanities, Music, Physical Education, Leisure Services. Required courses from a student's major may not be included.
$\overline{23}$ 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:
Physical Education: 420:013; 420:016 (Soccer); 420:021*; 420:050; 420:056; 420:140; 420:151; 420:152; 420:153; 420:173 (2 hrs.) ........................................... 22 hours
Electives ............................................................................ 4 hours
Physical Education: 420:013; 420:015; 420:016; 420:053; 420:132; 420:140; 420:145; 420:174; 420:176.
$\overline{26}$ hours
*420:021 will substitute for 420:045 in the Elementary Education Manjor requirement.

Current certification in American First Aid and CPR are required for completion of the Physical Education Minor at the time of student teaching.

## Leisure Services Major

The Leisure Services Major prepares students for work and on-going study in an aspect of human services. Graduates may find employment in working with people of all ages with diverse backgrounds in areas such as municipal parks and recreation, commercial leisure services, military recreation, tourism, therapeutic recreation - in clinical and communitybased settings, outdoor recreation, the nonprofit sector, and other opportunities. The Major focuses on direct service programming with an emphasis toward supervisory and managerial skills. The Leisure Services Major has NRPA/AALR accreditation.

The Leisure Services Major is offered with six focus areas: Programming Services Administration; Therapeutic Recreation; Tourism; Outdoor Recreation; Youth Services; Nonprofit Youth Services Administration. There is a common core of courses for all focus areas, with additional course requirements in each focus area.

A student must have a 2.00 grade point average (GPA) to declare a Leisure Services major. To maintain acceptable academic standing as a Leisure Services major, a student must maintain a 2.50 cumulative GPA in all Leisure Services courses ( $430: x x x$ ) required for the major or have consent of the Division Coordinator. If a student's required $430: x \mathrm{xxx}$ cumulative GPA drops below a 2.50 the student must repeat required $430: \mathrm{xcx}$ courses until the cumulative GPA is at least 2.50 prior to enrolling in any additional major (430:mox) required courses. Students will not be allowed to enroll in subsequent $430: x x$ courses required for the major until such time as their 430 :xxx cumulative GPA is at least 2.50 .

For Internship, students must have:

1. Current certification in Standard First Aid, Community CPR, Child Abuse Mandatory Reporter Seminar, and OSA Universal Precaution Standard Training.
2. 500 hours of verified leisure services-related work.

Required Core:
Leisure Services: 430:010; 430:020; 430:110; 430:114;
430:121; 430:184; 430:187; 430:189 .32 hours Focus area: choose one of the following ...............................30-33 hours 62-65 hours

## Focus Area - Programming Services Administration

 Required:Leisure Services: 430:168; 430:169; 430:172; 43Y:155 ........ 12 hours Supporting Courses:

18 hours from within the School of HPELS or other programs as approved by advisor

18 hours 30 hours

## Focus Area - Therapeutic Recreation (Extended Program)

The Therapeutic Recreation option may require a minimum of 129 hours to graduate.

Required:
Leisure Services: 430:123; 430:160; 430:163; 430:167; 430:169 . 15 hours Supporting Courses:

18 hours to be developed in consultation with advisor.
The following are required for National Council for Therapeutic Recreation Certification (NCTRC):

Physical Education: 420:050 ...ono.......................menome.... 3 hours
Design, Family and Consumer Sciences: 310:055 .......... 3 hours

Plus 9 hours in human services content areas including adapted physical education, related biological/ physical sciences, human services, psychology, sociology, and special education $\qquad$ 9 hours 33 hours
Note: 400:008 may be used to satisfy Category 4 A and $980: 058$ may be used to satisfy Category 4A/4C of the General Education Program.
Focus Area - Tourism
Required:
Leisure Services: 43T:070; 43T:170 or 43T:171; 430:168;430:169; 430:172 or 43T:17315 hours
Supporting Courses:
15 hours from within the School of HPELS or otherprograms as approved by advisor 15 hours
30 hours
Focus Area - Outdoor Recreation
Required:
Leisure Services: 430:050; 430:130; 430:143; 430:146;430:16915 hours
Supporting Courses:
15 hours from within the School of HPELS or other programs as approved by advisor 15 hours30 hours
Focus Area - Youth Services
Required:
Leisure Services: 43Y:060; 43Y:155; 43Y:157; 430:169........ 12 hours
Supporting Courses:
18 hours from within the School of HPELS or otherprograms as approved by advisor .................................. 18 hours30 hours
Focus Area - Nonprofit Youth Administration
Required:
Leisure Services: 43Y:060; 43Y:150; 43Y:151; 43Y:154;43Y:155.15 hours
Supporting Courses:15 hours from within the School of HPELS or otherprograms as approved by advisor .......................ece........ 15 hours30 hours
Leisure Services Minor
Required:
Leisure Services: 430:010; 430:020; 430:030; 430:110. ..... 12 hours
Electives from the following ..... 6 hours
Leisure Services: 430:114; 430:121; 430:123; 430:168;430:169; 430:172.18 hours
Youth Services Administration Minor
Required:Youth and Human Service Administration: 43Y:060;43Y:150; 43Y:151; 43Y:154; 43Y:155.15 hours
Leisure Services: 430:188 ..... 2 bours17 hours
Program Certificates
For information on the following Program Certificates, see pages 123-124 or contact the Leisure Services Division within the School of Health, Physical Education, and Leisure Services.

## Global Health Certificate Outdoor Recreation Certificate Youth Agency Administration Certificate

The Tourism Certificate program is jointly offered by the College of Business Administration and the College of Education, School of HPELS. This program is administered by the Leisure, Youth and Human Services Division within the School of HPELS, College of Education. For information on the following program certificate, see page 127 or interested students should contact the Division of Leisure, Youth and Human Services, Tourism Advisor, 203 WRC.

Tourism Certificate

## History

## (College of Social and Behavioral Sciences)

http://csbsnt.csbs.uni.edu/dept/history

J. Johnson, Head. J. Baskerville, G. Bruess, T. Connors, B. Cutter, R. Dise, T. Eden, C. Ehrick, L. Fenech, J. Goldman, R. Hesselink, W. Hettle, C. Holcombe, J. Lees, D. Maier, R. Martin, D. McKibbin, M. Mouton, T. O'Connor, C. Quirk, K. Sadkowski, R. Sandstrom. D. Shepardson, D. Walker, C. Weisenberger, C. Wells.

Note: The College of Social and Behavioral Sciences offers an Honors option to students majoring in one of the academic programs within the College. For further information regarding this Honors Program, please refer to page 57.

## Bachelor of Arts Degree Programs

## 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, Portuguese, Russian, and Spanish) or Russian/East European Studies.

## Required core courses:

Philosophy: 650:101 or 650:103 or 650:104 ........................... 3 hours
Humanities: 680:021 .................................................................................. 4 hours
History: one course from Category A $(960: 101,960: 103$, 960;151, $960: 152,960: 153,960: 158,960: 164,960: 171$, 960:173); 960:156; 960:170 (for students in Russian) or 960:172 (for students in German) or 960:174 (for students in French) or 960:186 (Studies in History: Portugal, for students in Portuguese) or 960:186 (Studies in History: Spain, for students in Spanish) or 960:165 (for students with an emphasis in English history) .9 hours
Electives in history, political science, economics or
geography--approved by advisor ( 6 hours must be taken outside of history) .9 hours

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

French: 720:101; 720:104; 720:124 or 720:125.
or
German: 740:101; 740:104; 740:123 or 740:150.
or
Russian: 770:101; 770:102; 770:141.
or
Spanish: 780:101; 780:104; 780:123.
or
Portuguese: 790:101; 790:123. To include 4 hours from 790:109; 790:186; 790:191; 790:198.

One 3-hour course in translation, literature or
TESOL/Applied Linguistics.
One summer's study abroad in Europe required for students in French, German, and Spanish and highly
recommended forstudents in Portuguese and Russian. Required for students emphasizing English history and language: one summer's study abroad in the British Isles.
$\overline{47}$ hours
*With permission, students emphasizing the British Isles may substitute
Gaelic, Old or Middle English for this requirement.

## History Major-Liberal Arts <br> Required*:

History: 960:010 (this course must be taken immediately after major is declared); 960:014; 960:015 (960:014 and 960:015 must be taken by the end of the sophomore year); 960:192 or 960:193. 12 hours
Electives in history .24 hours
To include:
European History - 12 hours Must include one course from Category A (960:101, 960:103, 960:151, $960: 152,960: 153,960: 158,960: 164$, 960:171, 960:173) and one course from Category B (960:154, 960:155, 960:156, 960:157, 960:160, 960:161, $960: 162,960: 165,960: 169,960: 170,960: 172,960: 174)$.
Non-Western History - 6 hours 960:127, 960:128, 960:175, 960:176, 960:177, 960:178, 960:180, 960:181, 960:182, 960:183, 960:187.
Electives from at least two related fields approved by the Department of History ( 6 of the 9 hours must be 100-level courses) 9 hours 45 hours
*All History majors must successfully complete 680:021 and 680:022.

## History Major-Teaching

Required:*
Social Science: 900:190; 900:191 ................................................... 4 hours
History: 960:010 (this course must be taken immediately after major is declared); 960:014; 960:015 (960:014 and $960: 015$ must be taken by the end of the sophomore year); 960:192 or 960:193 12 hours
Electives in history .......................................................................................... 27 hours
To include:
European History - 12 hours
Must include one course from Category A (960:101, $960: 103,960: 151,960: 152,960: 153,960: 158,960: 164$, $960: 171,960: 173$ ) and one course from Category B (960:154, $960: 155,960: 156,960: 157,960: 160,960: 161$, 960:162, $960: 165,960: 169,960: 170,960: 172,960: 174)$.
Non-Western History - 6 hours
960:127, $960: 128,960: 175,960: 176,960: 177,960: 178$,
960:180, $960: 181,960: 182,960: 183,960: 187$.
United States History - 9 hours
43 hours
The history major may consider a minor in at least one other social science discipline.
*All History majors must successfully complete 680:021 and 680:022.

## History Minor

Electives in history excluding courses used to meet
General Education requirements $\qquad$ 18 hours
Note: 960:015 and one European History course from Category B (960:154, 960:155, 960:156, 960:157, 960:160, 960:161, 960:162, 960:165, 960:169, 960:170, 960:172, 960:174) are strongly recommended.

## History Minor-Teaching

Required:
Social Science: 900:190; 900:191 (unless already taken

History: 960:014 and 960:015 for teaching endorsement in American History; or two courses in European History -- one from Category A (960:101, 960:103, $960: 151,960: 152,960: 153,960: 158,960: 164$, $960: 171,960: 173$ ) and one from Category B ( $960: 154,960: 155,960: 156,960: 157,960: 160,960: 161$, 960:162, $960: 165,960: 169,960: 170,960: 172,960: 174)$ for teaching endorsement in world history. $\qquad$ .6 hours
Electives in history: (for teaching endorsement in American history, students must take an additional 18 hours in
United States history; for teaching endorsement in world history, students must take an additional 18 hours in
European and non-Western history)
18 hours 24-28 hours
Students whose emphasis is world history must include one nonWestern history course and one history course from the following: Middle Ages, Ancient Near East, Greece, or Rome.

## Industrial Technology

## (College of Natural Sciences)

## http://www.uni.edu/indtech

M. Fahmy, Head. R. Betts, L. Burgess, S. Egger, J. Fecik, 1. Fidan, T. Hall, L. Honary, C. Johnson, A. Kashef, Y. Lerner, R. Pecen, M. Salim, M. Timmerman, S. Varzavand, M. White.

## Bachelor of Science Degree Program

-- 130 semester hours

## Construction Management Major

(Extended Program)
The Construction Management major requires a minimum of 138 total hours to graduate.

Required core:
Construction Sciences/Construction: 330:018; 330:025;
330:027; 330:033; 330:045; 330:100; 330:124; 330:125;
330:128; 330:149; 330:153; 330:154; 330:170; 330:173;
330:175; 330:185; 330:196
. 51 hours
Required:
Business and Management:

Management: 150:080; 150:101; 150:145 .....aco................ 9 hours
Economics: 920:020*; 920:024 ..osoonmeno.o.onomoonoso.............. 6 hours
Mathematics and Science:
Mathematics: 800:060; 800.072.......................................... 7 hours

Physics: 880:054 .......................................................... 4 hours
84 hours
*800:072 or 800:092 is a prerequisite for 920:020. Either 800:072 or 800:092 may be used to satisfy Category 5C of the General Education Program.

## Electro-Mechanical Systems Major

## (Extended Program)

The Electro-Mechanical Systems major provides a broad education in the field of electrical/electronics, microcomputers, fluid and hydraulics applications.

The Electro-Mechanical Systems major requires a minimum of 133 total hours to graduate with Industrial Supervision and Management option, and a minimum of 137 total hours to graduate with Engineering Technology option.

## Required core:

Technical Requirements:
Industrial Technology: 330:008; 330:037; 330:038; 330:126; 330:129; 330:152; 330:156; 330:162; 330:174; 330:176; 330:184; 330:196 36 hours

## Choose ONE of the two following options 40-44 hours

Option I - 44 hours
Option II - 40 hours
$\overline{76-80}$ hours

## Option I - Engineering Technology

Includes Math-Computer/Science requirements, Advanced Technical requirements and Technical/Management requirements as follows:
Mathematics/Computer/Science Requirements:
Mathematics: 800:060; 800:061; 800:072 ..nooco.ocosooneosenococo.. 11 hours
Computer Science: 810:035 or 810:036 ..ano.............ononomon. 3 hours


Advanced Technical Requirements:
Industrial Technology: 330:139; 330:160; 330:164;
330:166
12 hours

Industrial Technology: 330:017; 330:122; 330:142;
330:143; 330:147; 330:157; 330:172; 330:187.
English Language and Literature: 620:105.
44 hours

## Option II -- Industrial Supervision and Management

Includes Math-Computer/Science requirements, Industrial Supervision and Management requirements and Technical/ Management requirements as follows:
Mathematics/Computer/Science Requirements:
Mathematics: 800:048; 800:072.............................................. 7 hours


Physics: 880:054; 880:056 ..o.o.oen,.......n..................................... 8 hours
Industrial Supervision and Management Requirements:


Industrial Technology: 330:143; 330:187 ................................ 6 hours

Management: 150:119.
Industrial Technology: 330:017; 330:119; 330:122; 330:142;
$330: 143 ; 330: 147 ; 330: 157 ; 330: 160 ; 330: 164 ; 330: 165$.
English Language and Literature: 620:105.
*920:024 or 920:053 is a prerequisite to 130:101. 920:024 may be used to satisfy Category 4B of the General Education Program.

Undergraduate Program Requirements Industrial Technology


## Technology Education MajorTeaching

Required Mathematics and Science:
Mathematics: 800:072 ..... 3 hours
Physics: 880:054 ..... 4 hours
Required Technical courses:Industrial Technology: 330:008; 330:017; 330:018;330:022; 330:036; 330:11420 hours
Technical electives ..... 15 hours
Professional Technology Series:
Industrial Technology: 330:019; 330:120*; 330:178*;
330:190*; 330:195 14 hours
56 hours
*A minimum grade of $\mathbf{C}$ is required in $330: 120,330: 178$, and $330: 190$ prior to student teaching.
Note: Technology Education majors will be waived from 240:020 of the Professional Education Requirements. A student changing majors from Technology Education would be required to complete 240:020.
Technology Management Major
Required:
Management: 150:153 ..... 3 hours
Industrial Technology: 330:008; 330:018; 330:020;
330:022; 330:036; 330:065; 330:119; 330:142;330:143; 330;187; 330:19635-36 hours
Mathematics: 800:046 or 800:072 ..... 3-4 hours
Chemistry: $860: 010$ or $860: 020$ or $860: 044$ ..... 3-4 hours
Physics: 880:011 or $880: 012$ or $880: 054$ .....  $3-4$ hours
Technology electives in industrial technology ..... 15 hours
62-66 hours
Electrical and Electronics Technology Minor (EET)
Required:
Industrial Technology: 330:008; 330:037; 330:038; 330:152; 330:156; 330:157; 330:160 .23 hours
Mathematics: 800:048 or 800:060 ..... $\frac{4}{27}$ hours
General Industry and Technology Minor
Required:Industrial Technology: 330:008; 330:022; 330:036;330:19614 hours
Electives in Industrial Technology ..... 10 hours
24 hours
Graphic Communications Minor
Required:Industrial Technology: 330:022; 330:055; 330:070;330:169; 330:19618 hours
Electives: selected from the following: Industrial Technology: 330:150; 330:158; 330:161; 330:163; 330:194 ..... 6 hours24 hours

## Technology Education MinorTeaching

Required:
Option I
Industrial Technology: 330:008; 330:017; 330:018; 330:022; 330:036; 330:114; 330:120; 330:178 or 330:195; 330:190 .29 hours
Electives in Industrial Technology..................................................................... 30 hours

## Option II

Available only to post-baccalaureate licensure candidates.
Industrial Technology: 330:008; 330:017; 330:070;
330:086 ( 2 hrs.,Studies in Technology Education Activities); 330:114; 330:120; 330:130; 330:133 (3 hrs., Workshop in Energy and Transportation or Workshop in Communication); 330:186(a) (3 hrs., Studies in Curriculum Organization and Lab Management) or 330:186(b) (3 hrs., Studies in Technology Research Lab Activities); 330:190 $\qquad$ 30 hours

## Combined B.A./M.A. or B.S./M.A. Program

The Department of Industrial Technology offers a combined program leading to the Baccalaureate Degree and Master of Arts Degree in Technology. Students interested in the program should declare their intent by the end of the junior year and enter the program at the last semester of their senior year provided that $s$ (he) has an overall GPA of 3.00 or more. Please refer to the graduate section of this catalog (page 154) for detailed information on enrollment procedures and graduate program requirements.

## Program Certificate

For information on the following Program Certificate, see page 124 or contact the department office.

## Technology Management Certificate



## 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 Ethnic Studies Minor
American Studies Major
Asian Studies Major
Asian Studies Minor
Environmental Studies Minor
General Studies Major
Humanities Major
Humanities Minor
Individual Studies Major
Inter-American Studies Major
Inter-American Studies Minor
Leadership Studies Minor
Russian and East European Studies Major
Russian and East European Studies Minor
Women's Studies Minor

## American Ethnic Studies Minor

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

Required:
Social Work or Sociology: 450:045 or 900:045 or 980:045 3 hours
Social Science: 900:145 (this Capstone course to be taken last) $\qquad$ 3 hours
Electives from the following list of courses, chosen in
consultation with the Director of the American
Ethnic Studies Program for a minimum of
15 hours 21 hours
List of electives:
Area 1-American Historical Foundations
One of the following courses:
History: 960:122.
Anthropology. 990:132.
Area 2 - Ethnographic Background Perspectives
One of the following courses:
Social Work: 450:142.
Humanities: 680:130; 680:160.
Area 3 - Arts and Humanities
One of the following courses:
Music: 520:030
Music History and Musicology: 590:160
English Language and Literature: 620:055.
Area 4 - Politics and Society
One of the following courses:
Social Work: 450:163*.
Humanities: 680:131*.
*Additional prerequisites are required.
In courses with multiple sections, the section which indicates an American Ethnic Studies Emphasis will count for the minor.

These electives may also include individual department's readings, topics, and experimental courses, and other courses, as well as courses sponsored by the Individual Studies Program that directly relate to American Ethnic 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.

Undergraduate Program Requirements Interdisciplinary Majors and Minors

## 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, theatre, art, and music

## Required:

American literature elective.................................................... 3 hours
Political Science: 940:014 ............................................................... 3 hours
History: 960:014; 960:015; 960:144 ....................................... 9 hours
Electives: from the four areas above ............................................ 21 hours
Required: a senior colloquium* ............................................. 3 hours 39 hours
*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.

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

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

## Asian Studies Major

Required:
Humanities: two of the following -- 680:122; 680:124;
 Project to be supervised by Asian Studies Committee) 3 hours
Anthropology: 990:011 ...enounemeno....................................... 3 hours
Electives: a minimum of 24 hours of credit from at least
three different disciplines must be completed from
the following courses (a maximum of six (6) semester hours credit in language courses may be applied toward satisfying the 24 -hour elective credit requirement) ............ 24 hours

Art: 600:141 (sections on India, Japan, or China);
600:147.
Religion: 640:130; 640:132.
Humanities: one of the following -- 680:122; 680:124; 680:125
Languages:
Chinese: 710:001; 710:002; 710:011; 710:102.
Japanese: 730:001; 730:002; 730:011; 730:012.
Economics: 920:136*; 920:143*.
Political Science: 940:162; 940:168.
History: 960:181; 960:182; 960:183; 960:187.
Geography: 970:141.
Anthropology: 990:143.
*920:053 and 920:054 are required as prerequisites for all 100-level Economics courses. Both 920:053 and 920:054 will substitute for 920:024 which will satisfy Category 4B of the General Education Program.

Students are encouraged to study abroad for a minimum of one semester.

## Asian Studies Minor

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.

## Required:

Humanities: two of the following -- 680:122; 680:124;
680:125
6 hours
680:198 (to be supervised by the Asian Studies Committee and combining Asian Studies and the student's major discipline)
. 3 hours
Two additional courses to be chosen from the list of Asian Studies Major electives ............................................6hours 15 hours

## Environmental Studies Minor

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

Required:
Environmental Science: 830:130............................................... 3 hours
or
General Biology: 840:051 .................................................. 4 hours
Environmental Economics: 920:053; 920:054; 920:123* ...... 9 hours
Environmental Geography: 970:100** .................................. 3 hours
Environmental Sociology: 980:148**
Electives: a minimum of 9 semester hours of credit
(of which at least 6 hours must be from 100 -level courses) from disciplines other than the major and with no more than 6 hours from any single department must be completed from courses approved by the
Environmental Programs Office. 9 hours 27-28 hours
*Taking prerequisite courses 920:053 and 920:054 will satisfy Category 4 B of the General Education Program.
**These courses have prerequisites which may satisfy requirements in the General Education Program.

This minor allows students a specific program to complement their major. Because the Environmental Studies Minor is designed 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 Programs Office serving as the program coordinating body. Upon application by the student, the Dean of the College of Natural Sciences will appoint a faculty advisor to work closely with the student in planning her/his minor.

## 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 wellrounded 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 her/his 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 8 for a list of the departments under each college.
(See pages 41-42 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: 680:021; 680:022; 680:192 ........................... 11 hours
Interdisciplinary courses in, or including, the humanities* ..... 9 hours
Courses in history, from any department t.......................... 6 hours
Critical and analytical course......................................... 3 hours
Participatory course in creative or performing arts ........... 12 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.

## Mumanities 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: 680:021; 680:022; 680:168.
English:
English Language and Literature: 620:034.

## Arts (participatory):

Communication Studies: 48C:011.
Applied Music: 540:Nxx (instrument or voice).
Art: 600:002 or 600:004.
English Language and Literature: 620:070.
Philosophy and Religion: 640:024; any one of $650: 100$, 650:101, 650:103 or 650:104.

## Social Science:

Psychology: 400:118.
Sociology: 980:060.
Anthropology: 990:011.

## Interdisciplinary Studies:

Individual Studies: 000:196** (Interdisciplinary Readings).
Humanities: 680:192.
Science and Social Science majors may be excused from the requirement in their areas, and may substitute a course in any of the other specified areas or in history.
*If any of these courses are taken by the student to meet the requirements of any other program (e.g., general education, major field, etc.), the student must elect another course in any of the above specified areas or in history, except that either 680:021 or 680:022 may be counted for general education.
**This course should be elected only if $680: 192$ 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:


(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 her/his 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 her/his 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.

## Undergraduate Program Requirements Interdisciplinary Majors and Minors

## Inter-American Studies Major

This major is offered jointly by the College of Social and Behavioral Sciences and the College of Humanities and Fine Arts, and is administered by the University's Inter-American Studies Committee. For more information contact Dr. Michael H. Millar, Chair, Inter-American Studies Committee, Sabin Hall 117, University of Northern Iowa, Cedar Falls, IA 50614-0400; phone (319) 273-2631 or (319) 273-2170; Fax (319) 273-2546; e-mail michael.millar@uni.edu.

## Required:

Language .7-13 hours
(Note: Each language option is available only to nonnative speakers of that language, or to native speakers who can demonstrate a reading and speaking proficiency in a second one of these languages equivalent to that obtained upon the completion of the courses listed in the respective language component. Beginning students with no language competence will be required to take an additional 5-10 hours of their chosen language at the elementary level.)

English (A program of study will be determined by the student and her/his advisor.) or
French: 720:051;720:061; 720:101; 720:103 or
Spanish: 780:052; 780:062; 780:101; 780:103 or
Portuguese: 790:050; 790:060; 790:101
Common Core $\qquad$ 36 hours
Educational Psychology: 200:188;
English Language and Literature/French/Spanish/
Portuguese: 620:157 or 720:104 or 780:104 or 790:031;
Humanities: 680:123;
Humanities, Interdepartmental: 690:030;
Computer Science: 810:021;
Social Science: 900:023; 900:135;
Economics: 920:024*;
Political Science: 940:167;
History: 960:176 or 960:180 or 960:1 1xx (equivalent course); Philosophy/Geography: 650:175 or 970:100; Anthropology. 990:132 or 990:137.
(*Students pursuing Emphasis 1 below, or electing 920:123 in Emphasis 3, should take 920:053 in place of 920:024. Both 920:053 and 920:054 may substitute for $920: 024$ in Category $4 B$ of the General Education Program.)
Electives
12-15 hours
A total of four-five courses, to be selected entirely from
within one of the following five emphases.
55-64 hours

## Emphasis 1. Business and Economics

Accounting: 120:030;
Marketing/Management: 130:101 or 150:153;
Economics/Management: 920:054; 920:137 or 150:189.
Note: Students electing this emphasis may also wish to consider obtaining the Certificate in International Business; consult with the Inter-American Studies advisor.

## Emphasis 2. Cross-Cultural Studies in Education

Educational Psychology: 200:186;
Social Foundations: 260:138;
Leisure Services: 430:030;
Communication Studies: 48C:151;
TESOL/Applied Linguistics: 630:196.

## Emphasis 3. Environmental Studies

Earth Science/Geography: 870:031 or 970:026;
Earth Science: 870:035; 870:165 or 870:171;
Economics/Geography/Philosophy: 920:123* or 970:100 or 650:175 (not already selected from the Common Core).
*920:123 requires both 920:053 and 920:054 as prerequisites.

## Emphasis 4. Humanities and Fine Arts

Communication Studies/Music History and Musicology/ Performance Literature and Repertory: 48C:108 or 48 C : 109 or $48 \mathrm{C}: 110$ or $590: 160$ or $595: 129$;
English Language and Literature/French/Spanish: 620:055 or 620:186 or 720:122 or 780:112;
Religion: 640:117 or 640:161;
Humanities: 680:130;
French/Spanish/Portuguese: 720:121 or 780:120 or 790:123.

## Emphasis 5. Social Sciences

Political Science: 940:124 or 940:125 or 940:145;
History: $960: 176$ or $960: 180$ or $960: 1$ xx (equivalent course) (not already selected from the Common Core);
Geography: 970:104 or 970:151;
Anthropology: 990:010;990:142.
Students are encouraged to study abroad for a minimum of one semester.

## Inter-American Studies Minor

This minor is offered jointly by the College of Social and Behavioral Sciences and the College of Humanities and Fine Arts, and is administered by the University's Inter-American Studies Committee. For more information contact Dr. Michael H. Millar, Chair, Inter-American Studies Committee, Sabin Hall 117, University of Northern Iowa, Cedar Falls, IA 50614-0400; phone (319) 273-2631 or (319) 273-2170; Fax (319) 273-2546; e-mail michael.millar@uni.edu.

## Required:


(Note: Each language option is available only to nonnative speakers of that language, or to native speakers who can demonstrate a reading and speaking proficiency in a second one of these languages equivalent to that obtained upon the completion of the courses listed in the respective language component. Beginning students with no language competence will be required to take an additional 510 hours of their chosen language at the elementary level.)

English: Three courses, to be determined by the student and her/his advisor; or
French: 720:051; 720:061; 720:101; or
Spanish: 780:052; 780:062; 780:101; or
Portuguese: 790:050; 790:060; 790:101
Common Core: Four of the following courses ........................ 12 hours
English Language and Literature/French/Spanish/ Portuguese: 620:157 or 720:104 or 780:104 or 790:031;
Humanities: 680:123;
Humanities, Interdepartmental: 690:030;
Social Science: 900:135;
Political Science: 940:167;
History: 960:176 or 960:180 or 960:1 xx (equivalent course);
Geography: 970:104 or $970: 151$;
Anthropology: 990:132 or 990:137.
PLUS one of the five remaining courses 200:188; 810:021; $900: 023 ; 920: 024 ; 650: 175$ or $970: 100$ in the Common
Core for the Inter-American Studies Major** $\qquad$ 3 hours 22-24 hours
*Business majors must take 150:080, in place of 810:021, as this course.

## Leadership Studies Minor

The Leadership Studies Minor is an interdisciplinary program that educates students about and for leadership in a democratic society. The minor provides an overview of diverse leadership theories, concepts, and issues; assessment of leadership styles and abilities; and practical experiences tailored to the students' abilities. It is open to any student; prior experience in leadership activities is not required.

Admission requires a cumulative GPA of 2.50 (or permission of Director) and completion of one semester of college work (UNI or transfer).

Required:
Core Leadership courses: 680:010;680:110;680:188 7 hours


A. Diversity -- one course from approved list of courses on diversity.
Psychology. 400:110.
Social Work: 450:045.
Communication Studies: 48C:151; 48C:153.
Humanities: 680:130; 680:156.
Social Science: 900:020.
B. Ethics -- one course from approved list of courses on ethics.
Communication Studies: 48C:128.
Religion: 640:171.
Philosophy: 650:142; 650:172; 650:173; 650:174; 650:175.
Political Science: 940:158.
Note: Since 48C:128 is only a 2-hour course, an additional credit must be earned, perhaps through
independent study or writing a paper
on ethics learned through other courses.
C. General Elective -- one course from approved list.

Management: 150:100; 150:153.
Leisure Services: 430:152.
Social Work: 450:102.
Communication Studies: 48C:071; 48C.121; 48C:141;
48C:144; 48C:151; 48C:153; 48C:173.
English Language and Literature: 620:104.
Humanities: 680:130.
Political Science: 940:150;940:151; 940:156;940:189.
History: 960:144;960:150.
Sociology: 980:176.
Note: 48C:151, 48C:153, and 680:130 may count as either diversity elective or general elective for the minor.
Students may petition Director for Leadership Studies for a course not on the elective lists.

## 18-19 hours

## Program Certificate

For information on the following Program Certificate, see page 127 or contact the Director of Leadership Studies, Student Services Center 103.

## Certificate in Leadership Foundations

## Russian and East European 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:

> Russian: 770:001; 770:002; 770:003; 770:004; $\quad 770: 011 ; 770: 012 ; 770: 013 ; 770: 014 ; 770: 101 . . . . . . . . . . . . ~$ 3 hours

One culture course:

One of the following literature courses:
Russian: 770:102; 770:104; 770:132; 770:134 ....en............ 3 hours
The following social science courses:


Two of the following history courses:


Philosophy: 650:105.
Economics: 920:137*.
Political Science: 940:123.
Geography: 970:141.
47 hours
Students are encouraged to study abroad for one semester.
*920:053 and 920:054 may be required as prerequisites to 100-level Economics courses. Both 920:053 and 920:054 will substitute for 920:024 which will satisfy Category $4 B$ of the General Education Program.

## Russian and East European 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:
Russian: 770:001; 770:002; 770:003; 770:004; 770:011; 770:012; 770:013; 770:014 20 hours
One of the following literature courses:
Russian: 770:102; 770:104; 770:132; 770:134 ................... 3 hours
Two of the following social science courses ..................o........ 6 hours
Economics: 920:137*; 920:138*.
Political Science: 940:123; 940:164.
Geography: 970:141.
One of the following history courses:
History: 960:169; 960:170; 960:173 ...ono.o.o...................... 3 hours 32 hours
*920:053 and 920:054 may be required as prerequisites to 100-level Economics courses. Both 920:053 and 920:054 will substitute for 920:024 which will satisfy Category 4B of the General Education Program.

## Women's Studies Minor

Women's Studies is an interdisciplinary program that places women at the center of inquiry to attain a fuller understanding of our world. Its unique perspective strengthens the abilities of students within any major to critically analyze theory and research while developing an ethics of social responsibility. This program is offered under the jurisdiction and general supervision of the Deans of the Colleges of Social and Behavioral Sciences and Humanities and Fine Arts. For more information, contact the Women's Studies Office, Baker 168, (319) 273-7102, or the World Wide Web http://www.uniedu/womenstudies.

Required:
English Language and Literature: 620:128* .......................... 3 hours


One of the following ..oco.o.o...................................................... 3 hours
Psychology: 400:110.
Humanities: 680:160.
Social Sciences: 900:150 .1 hour
Electives from following list of courses chosen in consultation with the Director of the Women's Studies Program for a

22 hours
*Additional prerequisites may be required.
List of electives:
Educational Psychology: 200:140; 200:188.
Design, Family and Consumer Sciences: 310:052; 310:053;
310:057; 310:114; 310:152; 310:154.
Psychology. 400:173.
Health Promotion and Education: 410:020; 410:128; 410:162.
Leisure Services: 430:030; 430:164.
Social Work: 450:041; 450:045; 450:159; 450:163; 450:173; 450:194.
Communication Studies: 48C:108 or 48C:109 or 48C:110;
48C:113; 48C:122; 48C:123; 48C:144; 48C:146; 48C:151;
$48 \mathrm{C}: 153 ; 48 \mathrm{C}: 160 ; 48 \mathrm{C}: 180$ or $48 \mathrm{C}: 183$ or $48 \mathrm{C}: 185$ or $48 \mathrm{C}: 189$ or 48C: 190 .
Theatre: 490:160.
Music: 530:110.
Art: 600:032; 600:180.
English Language and Literature: 620:005.
Religion: 640:024;640:162;640:167;640:168.
Philosophy: 650:152.
Humanities: 680:123;680:130;680:156; 680:168.
Science and Science Education: 820:140.
Social Sciences: 900:020; 900:085.
Political Science: 940:130; 940:142.
History: 960:150; 960:156.
Sociology: 980:045; 980:060; 980:105; 980:131; 980:138; 980:171; 980:177.
Anthropology: 990:011;990:157; 990:158;990:167; 990:180.
In courses with multiple sections, the section which indicates a
"Women's Studies Emphasis" will count for the minor.
These electives may also include individual department's readings, topics, experimental courses, internships, and other 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.

# Iowa Lakeside Laboratory 

## (Interinstitutional Program)

Arnold G. van der Valk, Director:

## Participating Faculty

University of Northern Iowa: Lymn Brant (Earth Science), Michael J. Shott (Sociology, Anthropology, and Criminology), Daryl D. Smith (Biology), James C. Walters (Earth Science). Iowa State University Paul F. Anderson (Landscape Architecture and Agronomy), Julia M. Badenhope (Landscape Architecture), Lee Burras (Agronomy), C. Arthur Croyle (Art and Design), James Dinsmore (Animal Ecology), Charles D. Drewes (Zoology and Genetics), Steven M. Herrnstadt (Art and Design), Clay L. Pierce (Animal Ecology), Joseph A. Tiffany (Anthropology), Lois H. Tiffany (Botany). University of Iowa: Richard G. Baker (Geology), John F. Doershuk (Anthropology), Luis A. Gonzalez (Geology), Mary A. Harris (Biological Sciences), Stephen D. Hendrix (Biological Sciences).

For additional information see pages 11-12 and 241-243 in this publication or the Iowa Lakeside Laboratory Bulletin.

## Management

## (College of Business Administration)

## http://www.cba.uni.edu/management/mgmthome.html

G. Baker, D. Cyphert, C. Das, T. Frost, L. Goulet, P. Goulet, G. Hansen, A. Jedlicka, S. Kaparthi, R. Karsten, C. Kirk, A. Klink, T. McAdams, F. Moussavi, T. Polito, D. Power, T. Rodrigue, R. Roth, M. Rueschhoff, D. Saiia, G. F. Smith, M. Spencer, S. Wartick, L. Wilson.

Note: Students majoring in Management, Management Information Systems (MIS) and Business Teaching must satisfy the College of Business Administration (CBA) admission requirements before they can officially declare their major. A copy of the Admission, Retention, and Graduation Policy may be obtained from the Advising and Student Services Office in the College of Business Administration. Prior to completion of the admission requirements, students may sign an intent to major in one of these areas and be classified as a prospective (pre) major. Pre-Management, Pre-MIS, or Pre-Business Teaching majors may enroll in lower division (below 100) business courses only. Enrollment in upper division ( 100 -level) business courses requires satisfactory completion of the CBA admission requirements and any course prerequisites.

Students majoring in Management and MIS are not permitted to declare a double major within the College of Business Administration (the Economics/General and Economics/Quantitative Techniques and Economics/Community Economic Development majors; and the Economics, Business Communication, and Business Teaching minors excepted). Also, not more than one emphasis area may be declared in Management.

Students majoring in Business Teaching may declare a double major and/or major and minor within the College of Business Administration, subject to the regulations imposed by those CBA departments affected. Business Teaching majors minoring within the CBA must select minors designated for business majors.

To graduate with a major in Management, Management Information Systems, or Business Teaching from the College of Business Administration, a student must earn at least $50 \%$ of the business credit hours required for the major at UNI. Students must take at
least $50 \%$ of the course work required for the degree outside the College of Business Administration. Up to nine hours of economics (excluding 920:020), and six hours of statistics may be counted as outside the College of Business Administration. A student must also earn a 2.20 cumulative grade point average at UNI; and earn an overall 2.20 grade point average in 120:xocx, 130:x0x, 150:xxx, 160:xox, and 920:xox courses taken at UNI. In addition, Business Teaching majors must complete a total cumulative and cumulative UNI GPA of 2.50 or better.

## Bachelor of Arts Degree <br> Programs

## Management Major

Required business core:
Accounting: 120:030; 120:031.....................................op....... 6 hours
Marketing: 130:101 ........eneme............................................. 3 hours
Management: 150:080; 150:100; 150:153; 150:154; 150:175 .... 15 hours
Finance: 160:151 ................................................................ 3 hours
Economics: 920:020; 920:053; 920:054; 920:070.................. 12 hours
Required:
Management: 150:163; 150:165 ........................................... 6 hours
Emphasis Requirements (Choose one area of emphasis).......... 12 hours
57 hours*
*In addition to the required 57 hours, 920:020 and 920:070 have as a prerequisite $800: 072$ or $800: 092$, either of which will satisfy Category 5 C of the General Education Program.

## Emphases:

## 1. Business Administration

Group 1--Choose two of the following three areas:
a) $150: 145$.
b) 150:161 or 150:164.
c) 150:119 or 150:166.

Group II--Choose one of the following courses:
a) $150: 113$.
b) $150: 187$.
c) $150: 189$.
d) $650: 174$.

Group III--Choose one of the following or any additional course from Group I or Group II:

Accounting: 120:129 or 120:131.
Marketing: 130:106, 130:153, or 130:177.
Finance: 160:152, 160:158, or 160:161.
Economics: 920:113, 920:160, or 920:175.
2. Human Resource Management Required:

Management: 150:105; 150:166; 150:168.
Plus three hours to be selected from:
Management: 150:116; 150:130; 150:187.

## 3. Supply Chain and Operations

Required:
Management: 150:161; 150:164; 150:167.
Marketing: 130:161.

## Management Information Systems Major <br> (Extended Program)

The Management Information Systems Major requires a minimum of 127 total hours to graduate.

Required business core:
Accounting: 120:030; 120:031............................................. 6 hours

Management: 150:080; 150:100; 150:153; 150:154; 150:175 .... 15 hours
Finance: 160:151 .............................................................. 3 hours
Economics: 920:020; 920:053; 920:054; 920:070................. 12 hours
Required courses:
Management: 150:032; 150:034 or 810:034; 150:112;
150:120; 150:125; 150:140; 150:165 21 hours
Electives: 3 hours from the following .3 hours
Management: 150:127; 150:128; 150:190.
Computer Science: 810:161 (without lab).
*In addition to the required 63 hours, 920:020 and 920:070 have as a prerequisite $800: 072$ or $800: 092$, either of which will satisfy Category 5 C of the General Education Program.

## Business Teaching Major

## (Extended Program)

The Business Teaching Major requires a minimum of 137 total hours to graduate.

| Required business core: |
| :---: |
| Accounting: 120:030; 120:031 |
|  |
| Management: 150:080; 150:100; 150:153; 150:154; 150:175 ... 15 hours |
|  |
| Economics: 920:020; 920:053; 920:054; 920:070................. 12 hours |
| Required: |
| Marketing: 130:106; 130:172............................................ 6 hours |
| Management: 150:075; 150:101; 150:113; 150:117; 150:191 ... 13 hours |
| 58 hours* |

*In addition to the required 58 hours, 920:020 and 920:070 have as a prerequisite 800:072 or 800:092, either of which will satisfy Category 5 C of the General Education Program. Business Teaching Majors may substitute both 920:053 and 920:054 for 920:024 to satisfy Category 4B of the General Education Program.

The Professional Education Sequence requirements for the Business Teaching Major include 32 hours in the following courses: 200:017; 200:030; 200:128; 200:148; 220:150; 240:020; 250:150; 260:119; 280:070; and 280:138.

Undergraduate Program Requirements Management/Marketing

## Business Communication 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 Department of Management and the Department of Communication Studies. The minor requires a 15 -hour core plus $5-6$ hours from one of three emphases.

## Required core:

Communication Studies: 48C:071; 48C:132; 48J:007 ........... 9 hours
English Language and Literature: 620:015; 620:104 or 620:105 ... 6 hours
Required: 5-6 hours from one of three emphases below .... 5-6 hours 20-21 hours

## Emphases:

## Business:

Management: 150:113; 150:114.
OR
Communication:
Two of the following:
Communication: 48C:031; 48C:137; 48C:139 or 48C:141; 48C:148*.
OR
Journalism and Public Relations:
Two of the following:
Journalism: 48J:071*; 48J:172*; 48J:176*.
Public Relations: 48P:173*; 48P:184.
*These courses require additional prerequisites.
Note: When declaring this minor students must:
a) have a 2.50 cumulative GPA
b) have satisfactorily completed Categories 5 A and 5 B of the General Education Program.

Available to all UNI majors.

## Business Teaching Minor

Required:
Accounting: 120:030; 120:031 .6 hours
Marketing: 130:101; 130:106................................................................ hours
Management: 150:075; 150:080; 150:101; 150:102; 150:117; 150:191 .15 hours
Economics: 920:053**....................................................... 3 hours 30 hours
*Category 4B of the General Education Program may be satisfied by taking both 920:053 and 920:054.

## General Business Concepts Minor

Required:

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Marketing: 130:101 ................................................................ 3 hours
Management: 150:080; 150:100; 150:153 ............................ 9 hours
Economics: 920:024 or equivalent; 920:070....................... 6 hours 21 hours*
NOT available to majors in: Accounting, Business Teaching, Economics-Business Analysis Emphasis, Finance, Management, Management Information Systems, Marketing, and Real Estate.
*In addition to the required 21 hours, $920: 070$ has as a prerequisite $800: 072$ or $800: 092$, either of which will satisfy Category 5 C of the General Education Program.

## Program Certificates

For information on the following Program Certificate, see page 124 or contact the department office.

## 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 three business areas. A student may complete this option by taking the required licensing courses as general university electives. The total number of hours required for licensure will be 48. 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)

## http://www.cba.uni.edu/marketing

M. Sheffet, Head. P. Chao, D. Clayson, S. Corbin, P. Gupta, M. Klassen, K. Rajendran, M. Rawwas.

Note: Students majoring in Marketing must satisfy the College of Business Administration (CBA) admission requirements before they can officially declare their major. A copy of the Admission, Retention, and Graduation Policy may be obtained from the Advising and Student Services Office in the College of Business Administration. Prior to completion of the admission requirements, students may sign an intent to major in Marketing and be classified as a prospective (pre) major. Pre-Marketing majors may enroll in lower division (below 100) business courses only. Enrollment in upper division (100-level) business courses requires satisfactory completion of the CBA admission requirements and any course prerequisites.

Marketing majors may declare a double major, double minor, and/or major and minor within the College of Business Administration, subject to the regulations imposed by those CBA departments affected. Marketing majors minoring within the CBA must select minors designated for business majors. Marketing majors may not declare more than one emphasis in Marketing.

To graduate with a major in Marketing from the College of Business Administration, a student must earn at least $50 \%$ of the business credit hours required for the major at UNI. In addition, a minimum of nine graded hours must be earned in 100 -level, UNI Marketing courses. Students must take at least $50 \%$ of the course work required for the degree outside the College of Business Administration. Up to nine hours of economics (excluding 920:020), and six hours of statistics may be counted as outside the College of Business Administration. A student must also earn a 2.20 cumulative grade point average at UNI; and earn an overall 2.20 grade point average in 120:xxx, 130:xxx; 150:xxx, 160:xxx, and 920:xxx courses taken at UNI.

## Bachelor of Arts Degree

## Programs

## 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 70 for complete details of the major program.

## Marketing Major

Required business core:
Accounting: 120:030; 120:031 ................................................. 6 hours
Marketing: 130:101 ........................................................... 3 hours
Management: 150:080; 150:100; 150:153; 150:154; 150:175.... 15 hours
Finance: 160:151 ........................................................................... 3 hours
Economics: 920:020; 920:053; 920:054; 920:070................. 12 hours
Required:
Marketing: 130:106; 130:108; 130:191 ................................. 9 hours Marketing Emphasis Area: Select one emphasis area below .... 2 hours 57 hours*

1. General Marketing

Marketing electives: ( 9 hours)
130:131; 130:142; 130:150; 130:153; 130:161; 130:166;
130:169; 130:172; 130:177; 130:178; 130:182; 130:187.
2. Marketing Management

Required: (6 hours)
130:131; 130:177.
Marketing electives: ( 3 hours)
130:142; 130:150; 130:153; 130:161; 130:166; 130:169;
130:172; 130:178; 130:182; 130:187.
3. Retailling

Required: (6 hours)
130:161; 130:166.
Marketing electives: (3 hours)
130:131; 130:142; 130:150; 130:153; 130:169; 130:172;
130:177; 130:178; 130:182; 130:187.
4. Sales and Advertising

Required: ( 6 hours)
130:150; 130:153.
Marketing electives: ( 3 hours)
130:131; 130:142; 130:161; 130:166; 130:169; 130:172;
130:177; 130:178; 130:182; 130:187.
*In addition to the required 57 hours, both 920:020 and 920:070 have a prerequisite of either 800:072 or 800:092, either of which will satisfy Category 5C of the General Education Program.

## Marketing Minor

Required:
Marketing: 130:101* .......................................................... 3 hours
Economics: 920:024 or 920:053 ...eneno.o.................................e 3 hours
Marketing electives: three courses from the following ........ 9 hours
130:060, 130:106, 130:131, 130:142, 130:150, 130:153,
130:161, 130:166, 130:170, 130:177, 130:178, 130:187.
Business electives: two courses from the following $\qquad$ Accounting: 120:030.
Management: 150:153.
Finance: 160:055

NOT available to majors in: Accounting, Business Teaching, Economics-Business Analysis Emphasis, Finance, Management, Management Information Systems, Marketing, and Real Estate.
*130:101 has a prerequisite of either 920:024 or 920:053. 920:024 or both 920:053 and 920:054 will satisfy Category 4B of the General Education Program.

## Program Certificate

For information on the following Program Certificate, see page 124 or contact the department office.

## Certificate in Marketing Research and Consulting

## Mathematics

## (College of Natural Sciences)

## http://www.math.uni.edu/

G. Dotseth, Acting Head. s-m. belcastro, R. Campbell, G. Dotseth, D. Duncan, M. Ecker, P. Gray, J. Haack, S. Kirmani, M. Lee, L. Leutzinger, B. Litwiller, M. Millar, C. Miller, D. Mupasiri, G. Nelson, R. Paige, M. Prophet, E. Rathmell, S. Shaw, A. Stanley, D. Thiessen, P. Trafton, T. Veenstra, J. Wilkinson.

## 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 her/his 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 who complete the requirements for more than one program (major or minor) within mathematics may have that noted on their transcripts.

## Bachelor of Arts Degree

## Programs

## Mathematics Major

Required:

Mathematics:

Common Core: 800:060; 800:061; 800:062; 800:076 .......... 15 hours
Mathematics Core: 800:140; 800:141; 800:160;
800:162
12 hours

Electives 12-13 hours
Mathematics: Either 800:194 and four courses as described below, or 800:195 and three courses as described below. One course must be from each of Groups I, II, III. Ifa fourth course is required, it may be either any other course from Groups $\mathrm{I}, \mathrm{II}, \mathrm{III}$, or any course that has one of the courses from Groups I, II, and III as a prerequisite.

Group I: 800:155; 800:161; 800:165; 800:167.
Group II: 800:142; 800:149; 800:152; 800:156; 800:176*.
Group III: 800:144;800:169;800:180; 800:181; 800:182; 800:185.

Undergraduate Program Requirements Mathematics

## Mathematics Major-Applied

Required:
Mathematics:
Common Core: 800:060; 800:061; 800:062; 800:076.......... 15 hours Applied Core: 800:074; 800:140; 800:149; 800:176 $\qquad$ .18 hours Two of the following: $800: 141 ; 800: 150 ; 800: 178$. Computer Science: 810:031 or 810:034 or 810:036 $\qquad$ 3 hours Electives 9-10 hours
Mathematics: Either 800:194 and three of the courses listed below, or $800: 195$ and two of the courses listed below.
The course 800:141, 800:150, 800:178 not taken in the Applied Core. 800:142, 800:152, 800:154, 800:155, 800:156, 800:160, 800:161, 800:167, 800:171, $800: 174,800: 175,800: 177,800: 184,800: 187$,

## 45-46 hours

Note: The General Education requirement 5C is to be met by either $800: 072$ or $800: 092$; a student who does not satisfy 5 C by $800: 072$ is required to select 800:174 in the elective category.

## Mathematics Major-Statistics and Actuarial Science

Required:
Mathematics:
Common Core: 800:060; 800:061; 800:062; 800:076 ...... 15 hours
Statistics Core: 800:072; 800:152; 800:174; 800:175; 800:196 $\qquad$ .15 hours
Computer Science: 810:031, 810:032, 810:034, 810:035, 810:036, or 810:051 .3 hours
Electives
.9-10 hours
Mathematics: Either 800:194 and at least 9 credit hours from the following, or 800:195 and at least 6 credit hours from the following: 800:080; 800:146 (to a maximum of 3 credit hours); 800:154; 800:157; 800:158; 800:171; 800:176; 800:177.

42-43 hours

## Mathematics Major-Teaching

Required:
Mathematics:
Common Core: 800:060; 800:061; 800:062; 800:076 ...... 15 hours
Teaching Core: 800:092; 800:160; 800:165; 800:173; $800: 180 ; 800: 188 ; 800: 190$; two of the following -800:144, 800:162, 800:189.
.27 hours
Computer Science: 810:030, 810:032, 810:035 or 810:036 .. 3 hours
45 hours
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 $800: 062 ; 800: 076 ; 800: 160 ; 800: 165$; 800:188; 800:190; 810:030, 810:032, 810:035, or 810:036.
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

Required:
Mathematics: 800:060; 800:061; 800:076 ............................. 11 hours
Electives from the following ...o........................................................... hours
Mathematics: 800:062, 800:074, 800:140 or 800:156, $800: 142,800: 144,800: 152$ or $800: 173,800: 155$, 800:160, 800:165, 800:167, 800:169, 800:176, $800: 180$ or $800: 185,800: 182,800: 184$ or $800: 187$.

## Mathematics Minor-Teaching

Required:
Mathematics: 800:060; 800:061; 800:072 or 800:173; 800;076; 800:160; 800:165; 800:188; 800:190 $\qquad$ .26 hours
Computer Science: 810:030, 810:032, 810:035, or 810:036 .... 3 hours
Electives from the following .3-4 hours
Mathematics: 800:062, 800:074, 800:144, 800:169, 800:180, 800:182.

32-33 hours

## Mathematics Minor (K-6)-Teaching

Required:
One of the following three General Education courses ........ 3 hours Mathematics: 800:023; 800:072; 800:092.
Mathematics: 800:030; 800:037; 800:111; 800:112; 800:113; 800:114 . 20 hours
One of the following two courses .1 hour Mathematics: 800:137; 800:192.

## Statistics and Actuarial Science Minor

Required:
Mathematics: 800:060; 800:061; 800:072; 800:152 .............. 14 hours
Electives 9 hours
Mathematics: $800: 062,800: 076,800: 080,800: 146$, 800:154, 800:157, 800:158, 800:171, 800:174, 800:175, 800:177, 800:196.


## Military Science

## http://www.uni.edu/armyrotc

M. DePuglio, Head. D. Combs, A. Cornelius.

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 $\$ 2,000$ per 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:
Basic Course: 080:091; 080:092; 080:094; 080:095 ................ 6 hours
Advanced Course: 080:116; 080:117; 080:118; 080:119 ...... 12 hours

3 hours selected from each of the following fields:
Written Communication, Human Behavior,
Military History, Computer Literacy, Math Reasoning.
(General education courses taken in these areas
are accepted as meeting the elective credit requirements.)
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:
Military Science: 080:091*; 080:092*; 080:094*; 080:095*; 080:116; 080:117; 080:118; 080:119

18 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 ( $\mathrm{E}-5$ ) for their one weekend a month training assemblies, plus up to $\$ 250$ a month for 36 months in New G.I. Bill educational assistance benefits. Many ROTC SMP cadets also qualify for the Student Loan Repayment Program or tuition assistance.

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 $\$ 225$ per semester for textbooks, supplies, and equipment.

Army ROTC scholarships also provide a subsistence allowance of up to $\$ 2,000$ for each school year that the scholarship is in effect. Winning and accepting an ROTC scholarship does not preclude accepting other scholarships. See page 43 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 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 $\$ 200$ per month for each month of school (for up to 10 months per year) 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 176 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 West Gym (Room 203), UNI campus; or call the Student Advisor at (319) 273-6337. Please visit our website at http://www.uni.edw/armyrote.

## Modern Languages

## (College of Humanities and Fine Arts)

## http://www.uni.edu/modlangs

M. Basom, Head. S. Boruta-Sadkowski, R. Bubser, J. Cooley, J. DuBois, F. Konig, J. Grinstead, J. Koppensteiner, R. Krueger, M. Morales, M. Oates, A. Planells, S. Rosell, F. Vernescu, N. Vernon, S. Wildner, S. Yetter, G. Zucker.

Note: Major programs available in single or dual language include French, German, Portuguese, Russian, Spanish, and the Modern Languages Subject Field for the Middle Level Education 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 83-84. 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 her/his instructor as to the sequence of succeeding courses.

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

## Undergraduate Program Requirements

 Modern LanguagesThe total program hours will depend on the student's background and will vary.

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.

## Bachelor of Arts Degree Programs

## 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, Portuguese, Russian, and Spanish) or Russian/East European Studies.

Required core courses:
Philosophy: 650:101 or 650:103 or 650:104 .......................... 3 hours
Humanities: 680:021 ......................................................... 4 hours
History: one course from Category A (960:101, $960: 103$, 960:151, $960: 152,960: 153,960: 158,960: 164$, 960:171, 960:173); 960:156; 960:170 (for students in Russian) or 960:172 (for students in German) or 960:174 (for students in French) or 960:186 (Studies in History: Portugal, for students in Portuguese) or 960:186 (Studies in History: Spain, for students in Spanish) or 960:165 (for students with an emphasis in English history). .9 hours
Electives in history, political science, economics or geography-approved by advisor ( 6 hours must be taken outside of history) .9 hours

22 hours beyond first-year French, German, Portuguese,
Russian or Spanish, to include:
French: 720:101; 720:104; 720:124 or 720:125. or
German: 740:101; 740:104; 740:123 or 740:150.
or
Russian: 770:101; 770:102; 770:141.
or
Spanish: 780:101; 780:104; 780:123.
or
Portuguese: 790:101; 790:123. To include 4 hours
from 790:109; 790:186; 790:191; 790:198.
One 3-hour course in translation, literature or TESOL/Applied Linguistics.

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.

## Modern Languages Dual Major

Choose two from French/German/Portuguese/Russian/Spanish.
Required: a minimum of 21 semester hours, more advanced than the elementary/introduction level, in each of two languages for a total of 42 semester hours. At least 15 hours in each language must be in courses numbered 100 or higher.

42 hours
Specific requirement per language:
French: A minimum of 21 semester hours in French in courses more advanced than 720:002, including 720:101 and 720:104, of which at least 15 hours must be in courses numbered 100 or higher, including at least one course from each of the following groups:
a. 720:124; 720:125.
b. 720:108; 720:161; 720:185.
c. 720:114; 720:122; 720:128; 720:144.

German: A minimum of 21 semester hours in German in courses more advanced than 740:002 and 740:004, including 740:101, 740:103, and 740:104 or 740:031, of which at least 15 hours must be in courses numbered 100 or higher, including at least one course from each of the following groups:
a. 740:121; 740:123; 740:150.
b. 740:160; 740:185.
c. 740:116; 740:122; 740:127; 740:128; 740:143; 740:147.

Portuguese: A minimum of 21 semester hours in Portuguese in courses more advanced than 790:002, including 790:101 and 790:123; with electives from among 720:104, 780:104, 790:010, 790:020, 790:031 (any 620:031 section cross listed with 790:031), 790:109, 790:123; 790:133, 790:179, 790:180, 790:186, 790:191, 790:198, 790:199. At least 15 hours must be in courses numbered 100 or higher.
Russian: A minimum of 21 semester hours in Russian in courses more advanced than 770:002 and 770:004, including 770:101, 770:103, 770:196, of which at least 15 hours must be in courses numbered 100 or higher, including at least one course from each of the following groups:
a. 770:141; 770:142.
b. 770:102; 770:104.
c. 770:132; 770:134.

Spanish: A minimum of 21 semester hours in Spanish in courses more advanced than 780:002, including 780:101*, 780:103**, 780:104 or 780:105, and 780:107, of which at least 15 hours must be in courses numbered 100 or higher, including at least one course from group a and one course from group b. A maximum of 6 hours of course work in translation may be counted toward a major in Spanish.
a. 780:120; 780:123; 780:127; 780:152.
b. 780:112; 780:118;780:131; 780:135; 780:163; 780:164; 780:166.
*The requirement for 780:101 may be replaced by 780:150 in either a UNI or an Iowa Regents program abroad.
**The requirement for 780:103 may be replaced by 780:125 or 780:151 in either a UNI or an lowa Regents program abroad.

## Modern Languages Dual Major Teaching

## (Extended Program)

The Modern Languages Dual Major in Teaching requires a minimum of 141 total hours to graduate.

Students successfully completing this major will be eligible for licensure/endorsement in two languages. Choose two from French/German/Portuguese (endorsement only)/Russian (endorsement only)/Spanish.

Required:
Languages: 700:190; 700:193 $\qquad$ 5 hours
Practicum in one of the languages: 720/740/770/780/ 790:191

2 hours
Students must have a minimum of 30 semester hours* in one language and a minimum of 24 semester hours in another. In each language, at least 21 hours must be more advanced than the elementary/ introduction level, of which 15 hours must be in courses numbered 100 or higher. A total of 59 semester hours is required.

## 59 hours

Specific requirement per language:
French: A minimum of 24 (*or 30) semester hours in French, with at least 21 more advanced than 720:002, including 720:101 and 720:104, of which at least 15 hours must be in courses numbered 100 or higher, including at least one course from each of the following groups:
a. 720:124; 720:125.
b. 720:108; 720:161; 720:185.
c. 720:114; 720:122; 720:128; 720:144.

German: A minimum of 24 (*or 30) semester hours in German, with at least 21 more advanced than 740:002 and 740:004, including 740:101, 740:103, and 740:104 or 740:031, of which at least 15 hours must be in courses numbered 100 or higher, including at least one course from each of the following groups:
a. 740:121; 740:123; 740:150.
b. 740:160; 740:185.
c. 740:116; 740:122; 740:127; 740:128; 740:143; 740:147.

Portuguese: A minimum of 24 semester hours in Portuguese, with at least 21 more advanced than 790:002, including 790:101 and 790:123; with electives from among 720:104, 780:104, 790:010, 790:020, 790:031 (any 620:031 section cross listed with 790:031), 790:109, 790:123, 790:133, 790:179, 790:180, 790:186, 790:191, 790:198, 790:199. At least 15 hours must be in courses numbered 100 or higher.
Russian: A minimum of 24 semester hours in Russian, with at least 21 more advanced than 770:002 and 770:004, including 770:101, 770:103, 770:196, of which at least 15 hours must be in courses numbered 100 or higher, including at least one course from each of the following groups:
a. 770:141;770:142.
b. 770:102; 770:104.
c. 770:132; 770:134.

Spanish: A minimum of 24 (*or 30) semester hours in Spanish, with at least 21 more advanced than 780:002, including 780:101*, 780:103**, 780:104 or 780:105, and 780:107, of which at least 15 hours must be in courses numbered 100 or higher, including at least one course from group a and one course from group b. A maximum of 6 hours of course work in translation may be counted toward a major in Spanish.
a. 780:120; 780:123; 780:127; 780:152.
b. 780:112; 780:118;780:131; 780:135; 780:163; 780:164; 780:166.
*The requirement for 780:101 may be replaced by 780:150 in either a UNI or an lowa Regents program abroad.
**The requirement for 780:103 may be replaced by 780:125 or 780:151 in either a UNI or an Iowa Regents program abroad.

## French Major

Required:
French: a minimum of 33 semester hours in French in courses more advanced than 720:002, including 720:101, 720:103, and 720:104, of which at least 24 hours must be in courses numbered 100 or higher.

33 hours

## Emphases:

1. Liberal arts (at least one course from each of the following groups): a. 720:124; 720:125.
b. 720:108; 720:161; 720:185.
c. 720:114; 720:122; 720:128; 720:144.
2. Business (including the following):

720:102; 720:111; 720:124 or 720:125; 720:181.

## French Major-Teaching

Required: a minimum of 38 semester hours as follows:
Methods: 700:190 ( 3 hrs .); 700:193 (2 hrs.) $\qquad$ 5 hours
French: a minimum of 33 semester hours in French in courses more advanced than $720: 002$, including 720:101, 720:103*, 720:104, and 720:191 (2 hrs.) 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 . 33 hours
a. 720:124; 720:125.
b. 720:108; 720:161; 720:185.
c. $720: 114 ; 720: 122 ; 720: 128 ; 720: 144$.

38 hours
*The requirement for 720:103 may be fulfilled by participation in either a UNI or an Iowa Regents program abroad.

## French Minor

Required:
French: 720:101 or 720:103 3 hours
18 hours in French in courses more advanced than 720:002 .ocosoono..........................................................e.e. 18 hours

21 hours

## French Minor-Teaching

Required:
Methods: 700:190 (3 hrs.); 700:193 (2 hrs.) .ono.........o.o.o.ono.... 5 hours
French: 720:101; 720:191 (2-3 hrs.) .5-6 hours
18-19 hours in French courses more advanced
than 720:002 .............no.........................................18-19 hours
29 hours

## German Major

Required:
German: a minimum of 33 semester hours in German in courses more advanced than 740:002 and 740:004, including 740:101, 740:103, and 740:104 or 740:031, of which at least 24 hours must be in courses numbered 100 or higher.

## Emphases:

1. Liberal Arts

Choose at least one course from each category:
a. 740:102; 740:185.
b. 740:121;740:123;740:150; 740:160.
c. $740: 116 ; 740: 122 ; 740: 127 ; 740: 128 ; 740: 143 ; 740: 147$.
2. Business

Required: 740:111; 740:181.
Choose at least 2 courses from 740:102, 740:121, 740:123, 740:150, 740:185.

## German Major - Teaching

Required: a minimum of 38 semester hours as follows: Methods: 700:190 (3 hrs.); 700:193 (2 hrs.) $\qquad$ 5 hours
German: a minimum of 33 semester hours in German in courses more advanced than 740:002 and 740:004, including 740:101 ( 3 hrs .), 740:103, 740:104 or 740:031, and 740:191 ( 2 hrs.), of which at least 24 hours must be in courses numbered 100 or higher. .33 hours Choose at least one course from each category:
a. 740:102; 740:185.
b. 740:121; 740:123; 740:150; 740:160.
c. $740: 116 ; 740: 122 ; 740: 127 ; 740: 128 ; 740: 143 ; 740: 147$.

38 hours

## German Minor

## Required:

German: 740:101; 740:103 ..coce............................................... 6 hours
15 hours in German in courses more advanced than 740:002 and 740:004. .15 hours 21 hours

## German Minor - Teaching

Required:
Methods: 700:190 (3 hrs.); 700:193 (2 hrs.) .......eneoseno........... 5 hours
German: 740:101; 740:103; 740:191 ( 2 hrs.) ............................ 8 hours
16 hours in German in courses more advanced
than 740:002 and 740:004........................................................... hours 29 hours

## Portuguese Minor

Required:


## Russian Major

Required:
Russian: a minimum of 33 semester hours in Russian courses more advanced than 770:002 and 770:004, including 770:101, 770:103, and 770:196, of which at least 23 hours must be courses numbered 100 or higher, and including at least one course from each of the following groups:
a. 770:141; 770:142.
b. 770:102; 770:104.
c. 770:132; 770:134.

## Russian Minor

## Required:

Russian: 21 hours in courses in Russian more advanced than 770:002 and 770:004. .. 21 hours

## Russian Minor - Teaching

Required:
Methods: 700:190 (3 hrs.); 700:193 (2 hrs.) $\qquad$ .5 hours
Russian: 24 hours in courses in Russian more advanced than 770:002 and 770:004, including 770:191 (2-3 hrs.)

24 hours
29 hours

## Spanish Major

Required:
Spanish: a minimum of 33 semester hours in Spanish courses more advanced than 780:002, including 780:101*, 780:103**, 780:104 or 780:105, 780:107, 780:112 or 780:118, and 780:131 or 780:135 of which at least 26 hours must be in courses numbered 100 or higher, and including at least one course from group $a$ and one course from group $b$.
a. 780:120; 780:123; 780:152.
b. $780: 162 ; 780: 163 ; 780: 164 ; 780: 166$.

33 hours
*The requirement for 780:101 may be replaced by 780:150 in either a UNI or an Iowa Regents program abroad.
**The requirement for 780:103 may be replaced by 780:125 or 780:151
in either a UNI or an lowa Regents program abroad.

## Spanish Major - Teaching

Required: a minimum of 38 semester hours as follows:
Methods: 700:190 (3 hrs.); 700:193 (2 hrs.) $\qquad$ .5 hours
Spanish: a minimum of 33 semester hours in Spanish courses more advanced than 780:002, including 780:101*, 780:103**, 780:104 or 780:105***, $\mathbf{7 8 0 : 1 0 7 , 7 8 0 : 1 1 2 ~ o r ~ 7 8 0 : 1 1 8 , ~ 7 8 0 : 1 3 1 ~ o r ~ 7 8 0 : 1 3 5 , ~}$ and 780:191, of which at least 26 hours must be in courses numbered 100 or higher, and including at least one course from group $a$ and one course from group b.

33 hours
a. 780:120; 780:123; 780:152.
b. 780:162; 780:163; 780:164; 780:166

38 hours
*The requirement for 780:101 may be replaced by 780:150 in either a UNI or an Iowa Regents program abroad.
** The requirement for 780:103 may be replaced by 780:125 or 780:151 in either a UNI or an Iowa Regents program abroad.
***780:105 is highly recommended for Teaching majors.

## Spanish Minor

Required:

3 hours in Spanish courses more advanced than 780:101

3 hours

- 15 hours in Spanish in courses more advanced than 780:002

15 hours
21 hours

## Spanish Minor - Teaching

Required:
Methods: 700:190 (3 hrs.); 700:193 (2 hrs.) .aemo..................... 5 hours

3 hours in Spanish in courses more advanced

14-16 hours in Spanish in courses more advanced than 780:002 $\qquad$ 29 hours

## Program Certificates

For information on the following Program Certificates, see pages 124-125 or contact the department office.

Certificate in French Language Studies Certificate in German Language Studies<br>Certificate in Japanese Language Studies<br>Certificate in Portuguese Studies<br>Certificate in Russian Language Studies<br>Certificate in Spanish Language Studies International Commerce Certificate Certificate in Translation (in French, German, Portuguese, Russian, or Spanish)

## School of Music

## (College of Humanities and Fine Arts)

## http://www.uni.edu/music

J. Vallentine, Director. H. Aibel, J. Baker, T. Barry, D. Buch, R. Burkhardt, B. Chamberlain, J. Chenoweth, B. Fast, A. Floyd, J. Funderburk, D. Gordon, R. Grabowski, J. Graham, R. Guy, F. Halgedahl, J. Ham, R. Hogancamp, L. Jernigan, R. Johnson, M. Kratzenstein, J. McDonald, L. Morgan, M. Pinto, D. Rachor, D. Rierson, A. Schmitz, J. Schwabe, W. Shepherd, D. Smalley, D. Taylor, T. Tritle, R. Washut.

The School of Music offers majors and minors under two baccalaureate degrees: the Bachelor of Arts and the Bachelor of Music. These include:

$$
\begin{array}{ll}
\text { Bachelor of Arts -- } & \text { Music Major } \\
& \text { Jazz Studies Minor } \\
\text { Music Minor } \\
\text { Bachelor of Music -- } & \text { Composition-Theory Major } \\
& \text { Music Education Major } \\
& \text { Performance Major }
\end{array}
$$

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 Education major prepares the student for a teaching career and provides certification in music for grades $\mathrm{K}-6$ and $7-12$. The Performance and Composition-Theory majors are professional degrees 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 ( $540: 000$ ) for specialization and must meet the proficiency standards of the School of Music. The total required applied hours indicated for each major must be completed on one of the specialization instruments or voice on which the student auditioned. Dividing the required applied hours among various instruments, or voice and instrument(s), will not satisfy the applied music portion of any of the degree programs.

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 (570;010); instrumental students (Specialization B) will attend special sections of Instrumental Techniques (570:010) 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 Ensembles: In addition to applied music, all music majors must participate in at least one of the designated large ensembles for a minimum of 8 semesters ( 7 semesters for students in the music education program). Participation in large ensembles will be continuous from the first semester of residence until completion of the requirement. Participation in ensemble ( $530: 012 ; 530: 112$ ) does not satisfy the large ensemble requirement. Auditions are required for all ensembles in the School of Music, and students will be assigned to ensembles according to audition results.
-- Wind and percussion students will be assigned to an appropriate instrumental ensemble. 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 the music education program are required to participate in marching band for two semesters. (See also page xxx, Ensembles, for Jazz Band credits.)
-- In the fall semester, participation in either Concert Band or Jazz Band II may satisfy the large ensemble requirement for those students who have completed their respective marching band requirements and have met audition requirements for the two above ensembles.
-- String players will participate in the orchestra.
-- The initial choral ensemble for all freshmen voice students will be either UNI Singers or Women's Chorus. Freshmen are limited to participation in only one vocal ensemble. Students performing targeted roles in UNI Lyric Theatre main stage productions are exempt from ensemble participation for four (4) weeks preceding the final performance of the production.
-- Composition and Keyboard majors will audition for either an instrumental ensemble or a choral ensemble. Keyboard majors in the music education program shall participate in an ensemble appropriate to their specialization.

## Bachelor of Arts Degree

## Programs

## Music Major


#### Abstract

Required: Applied Music ( $540: x 0 x$ ), including at least 4 hours of 100 -level work in major area 16 hours Music Theory: 580:011; 580:012; 580:013; 580:014; 580:015; 580:016; 580:017; 580:018; 580:025; 580:026; 580:027; 580:028 .16 hours Music History and Musicology: 590:005; 590:010; 590:011 ...... 8 hours Electives in music (limited to 100 -level courses in the following areas only: 560:xxx; 570:xxx; 580:xxx; 590:xcx; 595:xxxx) 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 580:110,580:120, and 580:121 and will increase their hours in the major to 48 . The Fundamentals of Musical Acoustics, 880:142, may be substituted for a 100 -level music elective. Up to two credit hours of large ensemble, 530:1xx, may be counted toward the 100 -level music elective.


## Jazz Studies Minor

Required:
Music, Organizations and Ensembles: 530:x16 (Jazz Bands
and Combos) .....................................................................................
Applied Music ( $540: \mathbf{x x x}$ ) ........................................................ 4 hours
Music Techniques: 560:152; 560:155 ...................................... 4 hours
Music Theory: 580:127; 580:128 ............................................ 4 hours
Music History and Musicology: 590:160 ............................. 3 hours
21 hours

## Music Minor

Required:
Music, Organizations and Ensembles (530:00x).................... 2 hours

Music Theory: 580:010; 580:011; 580:012; 580:015;
580:016; 580:025; 580:026 ........................................... 10 hours
Music History and Musicology: 590:005 ............................. 2 hours
Electives in music (560:xxx; 570:xxx; 580:xxx; 590:xoxx; 595:xax)

6 hours
24 hours
Departmental audition requirements apply to this minor.

## Bachelor of Music Degree

Programs

## Composition-Theory Major

Required:
Music Theory/Applied Music: Composition and Music Technology Class/Applied Composition: 580:022; 540:054 (8 hrs.); 540:154 (9 hrs.). 20 hours
Music, Organizations and Ensembles (530:xxx) (including 2 hours of West African Drumming 530:012:20 8 hours
Applied Music: Applied Piano 540:046 and/or 540:146 (beyond 540:P46) ..... 4 hours

Music Techniques: $560: 017$ or $560: 018 ; 560: 021$ or 560:022

5 hours
Music Theory: 580:011; 580:012; 580:013; 580:014; 580:015; 580:016; 580:017; 580:018; 580:025; 580:026; 580:027; 580:028; 580:110; 580:121; 580:126.
. 24 hours
Music History and Musicology: 590:005; 590:010; 590:011; 590:1 xx or 595:1xx.
.. 11 hours
Electives in music: (100-level) ................................................. 5 hours
Electives in Foreign Language: 2-5 hours
79-82 hours
Additional requirement: Portfolio of Compositions in diverse media including at least one chamber work, one work in a larger form, and one work which utilizes current music technology. Majors are expected to present regular performances of their pieces on the Student Composers Concert Series (minimum of six performances). One semester of any foreign language ( $2-5$ credit hours; this is beyond the foreign language requirement for entrance to UNI). Majors must have a grade of $B$ or better in Analysis 580:110 before they can take 18th Century Counterpoint 580:121.
Note: The Fundamentals of Musical Acoustics $880: 142$ may be substituted for a 100-level music elective. Prerequisites for 580:022 include Theory/AT/SS IV (580:014, 580:018,580:028) with an average grade of C or better.

## Music Education Major

## (Extended Program)

The Music Education Major requires a minimum of 138 total hours for Specialization A, a minimum of 138 total hours for Specialization B, and a minimum of 150 total hours for Specialization C to graduate.

Required:
Music, Organizations and Ensembles (530:0x)...................... 7 hours
Applied Music ( $540: x x x$ ) see specializations below
Music Education and Methods: 570:050; 570:141 $\qquad$ .5 hours
Music Theory: 580:011; 580:012; 580:013; 580:014; 580:015; 580:016; 580:017; 580:018; 580:025; 580:026; 580:027; 580:028; 580:110 ................................. 18 hours
Music History and Musicology: 590:005; 590:010; 590:011.... 8 hours CORE TOTAL (Applicable to all specializations

 MAJOR TOTAL ................................................................. 66 hours
Specialization C below ............................................................ 38 hours MAJOR TOTAL .................................................................... 76 hours
Specializations (choose A, B or C below)--
Specialization A (Choral/General: K-6, 7-12)
Applied Music: ( $540: x x x$ ) including at least 4 hours of 100-level work in major area
.12 hours
Applied Music: Applied Piano 540:046 and/or 540:146 (taken beyond 540:P46)
.. 2 hours
Music Techniques: 560:018; 560:022; 560:030; 560:031 ........ 7 hours
Music Education and Methods: 570:010 (High Strings or Low Strings recommended); 570:130; 570:153; 570:165 7 hours 28 hours
Specialization B (Instrumental: K-6, 7-12)
Applied Music ( $540: x x x$ ) including at least 4 hours of 100-level work in major area 14 hours
Music Techniques: 560:017; 560:021 ....................o.o.o............ 5 hours
Music Education and Methods: 570:010 ( 6 hrs ., including one course each from brass, percussion, strings, and woodwinds); 570:155

9 hours
28 hours

## Specialization C (Jazz: K-6, 7-12)

Applied Music ( $540: \times x x$ ) including at least 4 hours of
100 -level work in major area ............................................ 14 hours
Music Techniques: 560:017; 560:021; 560:052/152 .............. 8 hours
Music Education and Methods: 570:010; 570:155 ................ 9 hours
Music Theory: 580:127; 580:128 ............................................ 4 hours
Music History and Musicology: 590:160 ............................ 3 hours
38 hours
Note: Music Education majors will meet the requirements of $250: 150$, Classroom Evaluation Instruments (Professional Education Requirements), by completing 570:141 and 570:155 or 570:165. They will meet the requirements of 240:020 Educational Media by completing 570:050, 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: degree recital (half recital).
2. For specialization C (Jazz): two (2) semesters of jazz combo are required in addition to the large ensemble requirement ( 7 hours) of orchestra, chorus or band.
3. For all specializations: students must have a minimum grade of C in all music subjects in order to qualify for student teaching.
4. Large ensemble requirements for guitar majors can be fulfilled by participation in either Jazz I, II, III, or IV, or a jazz combo.
5. Guitar majors may not pursue the Music Education with Jazz specialization degree.

## Performance Major

## Required:

Music, Organizations and Ensembles ( $530: \mathbf{x x x}$ )..................... 8 hours
Applied Music (540:xax) including at least 12 hours of
100 -level work in the major area ................................... 22 hours
Music Techniques: 560:017 or 560:018; 560:021 or
560:022 ..................................................................................... 5 hours
Music Theory: 580:011;580:012; 580:013; 580:014;
580:015; 580:016; 580:017; 580:018; 580:025;
580:026; 580:027; 580:028; 580:110; 580:1xx ................ 21 hours
Music History and Musicology/Performance Literature and Repertory: 590:005; 590:010; 590:011; 595:120; 590:1 xx and/or 595:1xx .13 hours Electives: 540:xxx (maximum of 4 hrs.); 560:xxx; 570:xxx;

580:xxax; 590:xax; 595:xcx only
.11 hours 80 hours

## Additional Requirements:

1. Junior recital (half recital).
2. Senior recital (full recital).
3. Voice majors will elect $560: 030$ and $560: 031$; 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, 570:130, and Performance Literature for Voice II, 595:120.
Note: Performance majors who desire teaching licensure can complete the music methods requirements under the Music Education major (page 108) and the Professional Education Requirements (page 45). The Fundamentals of Musical Acoustics, 880:142, may be substituted for a music elective.

## Philosophy and Religion

## (College of Humanities and Fine Arts)

http://www.uni.edu/philrel<br>B. DeBerg, Head. K. Atkinson, H. Brod, S. Clayton, W. Clohesy, S. Hill, M. Holland, B. Keeley, D. Morgan, M. Reineke, J. Robinson, J. Soneson.

# Bachelor of Arts Degree Programs <br> <br> Philosophy Major 

 <br> <br> Philosophy Major}

Required:<br>Philosophy: 650:045; 650:142; 650:150<br>$\qquad$ 9 hours<br>At least three of the following: $650: 100 ; 650: 101$; 650:103; 650:104<br>.9-12 hours<br>Electives from the following: 650:021; 650:105 650:113;<br>650:119; 650:143; 650:152; 650:153; 650:172 ...................9-12 hours<br>Additional electives in philosophy.............................................. 6 hours<br>36 hours

## Major in the Study of Religion

```
Required: at least 6 hours from each of the following categories:
Textual and Analytic Studies of Religion: 640:030; 640:113; 640:126; 640:141; 640:142; 640:154; 640:167; 650:113. 6 hours
Historical and Cultural Studies of Religion: 640:130; 640:132; 640:134; 640:136 6 hours
Social and Ethical Studies in Religion: 640:115; 640:162; 640:165; 640:168; 640:171
``` \(\qquad\)
``` . 6 hours
Electives in religion (not more than two from 640/650:173;
640/650:174; 640/650:175; 640/650:197) ........................ 18 hours
36 hours
```


## Pre-Theological Emphasis

Students preparing for ministry or for graduate professional education in theology at a seminary or divinity school, regardless of major, are advised to consult with the pre-theological advisor, who will help them to know the requirements of individual schools and to plan an undergraduate program appropriately designed for their professional interests.

## 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 two 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. 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.

## Ethics Minor

The Ethics Minor is intended to provide students of diverse major fields of study a way to focus and develop their interest in ethics both by offering them a core of courses essential to an understanding of the field of ethics and by advising them in the selection of courses that enable them to develop depth and detail in theoretical, professional and applied ethics.

## Required:

Religion: 640:171 _mo........................................................... 3 hours
Philosophy: 650:142 .......................................................... 3 hours
one of the following ........................................................... 3 hours
Religion: 640:024.
Philosophy: 650:021.
one of the following .....................n.un.................................... 3 hours
Philosophy or Religion: 640/650:173; 640/650:174; 640/650:175.
Philosophy. 650:245.
At least one elective in a course of relevance to ethics chosen from the following list of courses compiled by the Ethics Committee of the Department of Philosophy and Religion in consultation with the heads and faculty members of the specific departments, for a minimum of .... 3 hours

15 hours

## List of electives:

Management: 150:100.
Finance: 160:162.
Psychology: 400:160.
Communication Studies: 48C:128
Religion: 640:162; 640:165; 640:194.
Philosophy: 650:105; 650:152; 650:172; 650:194.
Humanities: 680:130.
History: 960:122;960:142; 960:146; 960:161.
Geography: 970:128.
These electives may also include readings, topics, and experimental courses offered by individual departments. The electives selected must have the written approval of the Chair of the Ethics Committee on file in the Registrar's Office before the final completion of the minor.

## Philosophy Minor

## Required:

Philosophy: 650:021 ................................................................ 3 hours
Two courses in history of philosophy series ........................... 6 hours
Electives in philosophy ......................................................... 12 hours
21 hours

## Religion Minor

Required:
Religion: 640:024;640:141 or 640:142 ..... 6 hours
Electives in religion (may include 650:113) ..... thours21 hours

## Physics

## (College of Natural Sciences)

## http://www.physics.uni.edu

F. Behroozi, Head. D. Berman, J. Deisz, L. Escalada, D. Olson, M. Roth, P. Shand, M. Thoresen, R. Unruh.

The Department of Physics offers major programs in two baccalaureate areas: the Bachelor of Science and the Bachelor of Arts. The B.S. Physics Major is recommended for students who wish to prepare for graduate study in physics, engineering, or other sciences such as geophysics, astronomy, biophysics, or medical physics.

The B.S. Applied Physics Major 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 is for students preparing to be physics teachers at the secondary school level.

# Bachelor of Science Degree Programs <br> <br> -- 130 semester hours 

 <br> <br> -- 130 semester hours}

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

## Applied Physics Major

Required:
Mathematics: 800:060; 800:061; 800:062; 800:076; 800:149 .... 18 hours Chemistry: 860:044 and 860:048, or 860:070 .5-8 hours
Physics: 880:130; 880:131; 880:132; 880:137;
880:138; 880:187
. 17 hours
Choose ONE of the following two options ............................................................................... 65-68 hours

## Option 1: Applied Physics

Required:
Physics: 880:140 or 880:141; 880:145; 880:150; 880:152; 880:154; 880:179 or 880:184 . 19 hours
Electives in physics: 100-level (excluding 880:193,
may include 870:130) .................................................................... hours
OPTION 1 TOTAL ...................................................................... 25 hours

## Option 2: B.S. Applied Physics/Engineering Dual-Degree Major

Qualified students may pursue a dual-degree major leading to a B.S. Applied Physics degree from the University of Northern Iowa (UNI) and a B.S. engineering degree from Iowa State University (ISU) or the University of Iowa (UI). This requires approximately three years of attendance at UNI followed by approximately two years of attendance at ISU or UI. Students who successfully complete the UNI part of the major are guaranteed admittance into the ISU or UI portion of the major if they have: an average of at least $B(3.00 \mathrm{GPA})$ in all course work; an average of at least $B$ (3.00 GPA) in the chemistry, mathematics, and physics courses required by the UNI Department of Physics; and the positive recommendation of the Head, Department of Physics.

The engineering courses completed toward a B.S. engineering degree at ISU or UI will be transferred to UNI to provide 9-13 credit hours of electives for the applied physics portion of the major. The UNI internship requirement will be satisfied through comparable practical experience at ISU or UI that has been approved by the Head, Department of Physics, UNI.

In the first three years, taken at UNI, students in the major must complete at least 90 semester credit hours of course work. In addition to the courses listed above, the students are expected to complete courses to satisfy the General Education requirements. Credit, but no grades, for courses at UNI passed with a grade of C or better will be transferred to ISU or UI as credit for equivalent courses there, even though they may not be required by the engineering curriculum selected by the student.

During the years at ISU or UI, students will complete the requirements specified in the College of Engineering Catalog at the time of their admission. Course work completed at ISU or UI will be transferred to UNI to complete the requirements for the applied physics portion of the major. Upon successful completion of the major, students will be eligible to participate in commencement ceremonies at both UNI and either ISU or UI.

## Required:

Physics:
.13-16 hours
Two of the following: $880: 136 ; 880: 150 ; 880: 166$; 880:167; 880:172.
and two of the following: 880:140; 880:141; 880:145; 880:152; 880:174.
Physics electives:
.9-12 hours
(Course work must be completed at ISU or UI that satisfies the UNI requirements of 9-12 credit hours of electives in Applied Physics. The UNI internship requirement will generally be satisfied through comparable practical experience at ISU or UI that has been approved by the Head, Department of Physics, UNI.) OPTION 2 TOTAL 25 hours

## Physics Major

Required:

Chemistry: $860: 044$ and $860: 048$, or $860: 070$ .5-8 hours
Physics: 880:130; 880:131; 880:132; 880:136; 880:137; 880:138; 880:150; 880:166; 880:167; 880:172; 880:180; 880:187 38 hours Electives:

Physics: 100 -level (excluding 880:193, may include 870:130) 6 hours 67-70 hours

## Bachelor of Arts Degree

## Programs

## Physics Major

Required:

Mathematics: 800:060; 800:061
. 8 hours

Physics: 880:130; 880:131; 880:132; 880:137; 880:138 ........ 16 hours Electives:

Mathematics or Computer Science ...................................3-4 hours One of the following: 800:062, 800:076, or 810:051.
Physics: 100-level (excluding 880:193).
.11 hours
College of Natural Sciences .............................................................. 15 hours
Elective courses must be ones that count toward a major in the department in which the course is offered or courses numbered 830:xcx.

53-54 hours

## Physics Major With Environmental Emphasis

```
Required:
    Mathematics: 800:060; 800:061................................................. }8\mathrm{ hours
    Environmental Science Core:
        830:130;840:051; 840:052; 860:044 and 860:048,
        or 860:070; 870:031; 920:024*
        ..23-26 hours
    Physics: 880:130; 880:131; 880:132; 880:134; 880:137;
        880:138
        . }19\mathrm{ hours
    Electives:
    Mathematics or Computer Science .................................-4-4 hours
        One of the following: 800:062, 800:076, or 810:051.
    Physics: 100-level (excluding 880:193)................................... }8\mathrm{ hours
    Environmental Science: One of the following ..................3-7 hours
        Biology: 840:168.
        Chemistry: 860:132 and 860:138.
        Earth Science: 870:171.
        Economics: 920:123.
            64-72 hours
*Students should substitute both 920:053 and 920:054 for 920:024 if
920:123 is selected as an elective. Taking both 920:053 and 920:054 will
satisfy Category 4B of the General Education Program.
```


## Physics Major - Teaching

Required:
Mathematics: 800:060; 800:061.............................................. 8 hours
Science and Science Education: 820:190; 820:196 ................. 3 hours
Physics: 880:130; 880:131; 880:132; 880:137; 880:138;
880:193 ............................................................................ 18 hours
Electives:
Physics: (all 100-level courses) ......oen..................................... 7 hours
Non-physics science courses from the College of Natural Sciences (excluding all 820:xxx and mathematics below 800:060). 6 hours
42 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 licensure.

Undergraduate Program Requirements Physics/Political Science

## Physics Minor

Required:

Electives in Physics: 100-level courses (excluding 880:193) ....... 8 hours
16 hours

## Physics Minor - Teaching

Required:
Science and Science Education: 820:190; 820:196 $\qquad$ 3 hours Physics: 880:054 or 880:130; 880:056 or 880:131; 880:193 ...... 10 hours Electives in Physics: 100 -level courses (including no more than four hours from 880:152 and 880:154) $\qquad$ 27 hours

## Political Science

## (College of Social and Behavioral Sciences)

## http://csbsnt.csbs.uni.edu/dept/polisci

T. Rice, Head. P. Agbese, K. Basom, A. Brierly, R. Hays, S. Lobell, P. Mauceri, W. McLean, D. Vajpeyi, T. Yu.

Note: The College of Social and Behavioral Sciences offers an Honors option to students majoring in one of the academic programs within the College. For further information regarding this Honors Program, please refer to page 57.

## Bachelor of Arts Degree

## Programs

## Political Communication Major

Required core:
Communication: $48 \mathrm{C}: 160 ; 48 \mathrm{C}: 180$ or $48 \mathrm{C}: 183$ or $48 \mathrm{C}: 185$ or 48 C : 189 or $48 \mathrm{C}: 190$. 6 hours

Political Science: 940:111; 940:150 ...o.o.o.o.....o.o........................ 6 hours



Communication: 48C:197 or
Political Science: 940:181.
Emphases (select two areas of focus with 5-6 hours from each area)

11-12 hours
36-37 hours
Focus Area 1: State and Local Public Affairs (6 hours)
Political Science: 940:131; 940:132; 940:148.
Focus Area 2: Political Campaigns and Elections ( 6 hours) Political Science: 940:112; 940:134; 940:151.
Focus Area 3: International Affairs (6 hours)
Political Science: 940:125; 940:143; 940:145.
Geography: 970:116.
Focus Area 4: International Communication (6 hours)
Communication: 48C:151.
Journalism: 48J:151.
Public Relations: 48P:170.

Focus Area 5: Decision-Making (5-6 hours)<br>Communication: 48C:128;48C:137; 48C:148; 48C:178.<br>Focus Area 6: Political Discourse (6 hours) Communication: 48C:113;48C:123;48C:171; 48C:172; 48C:174. Sociology: 980:138.<br>Focus Area 7: Media Analysis (5-6 hours) Electronic Media: 48E:021; 48E:131; 48E:139; 48E:141; 48E:161.

## Political Science Major - Liberal Arts

Required:
Political Science: 940:014; 940:110; 940:111*; 940:124........ 12 hours

$940: 040 ; 940: 135 ; 940: 162 ; 940: 164 ; 940: 165 ; 940: 167 ;$ 940:168.
 940:156; 940:158; 940:160; 940:161.
 940:131; 940:132; 940:134; 940:138; 940:151.
Electives in Political Science
18 hours
39 hours**|
*For 940:111 students may choose to substitute both 920:053 and 920:054 OR successful completion of four semesters at the college level of any foreign language with at least a 2.00 GPA .
**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 940:015 or 940:026 to meet either their general education or major or minor requirements.

## Political Science Major - Teaching (Extended Program)

The Political Science Major in Teaching requires a minimum of 137 143 total hours to graduate.

Required:


Political Science: 940:014; 940:110; 940:124*; 940:131 or 940:132; 940:134 or 940:151 ..........................o.........o.o.... 15 hours
One of the following: 940:156, 940:158, 940:160, or
 One of the following: $940: 135,940: 149,940: 162,940: 164$, 940:165, 940:167, or 940:168 .aco.eco............o.o.o.o.o.o.o.os, .o..... 3 hours

37 hours ${ }^{4 *}$
*Students who have credit in 940:026 must substitute one of the following courses for 940:124: 940:125; 940:127; 940:128; 940:143; 940:145.

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 940:015 or 940:026 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 2.50 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 2.50 in course work taken at UNI in the Public Administration Major.

Required:
Political Science: $940: 014 ; 940: 110 ; 940: 111 ; 940: 148$; 940:153; 940:172; 940:173; 940:174; 940:176 ...........a.o..... 27 hours


Area of concentration: choose one of the following ............._15 hours 49-53 hours
Focus Area 1 - General Administration (select 15 hours)
Management: 150:100; 150:153; 150:165***; 150:187***.
Social Work: 450:144; 450:172.
Public Relations: 48P:005.
Economics: 920:053; 920:054; 920:117**; 920:160**.
Political Science: 940:131*; 940:132*; 940:149; 940:154; 940:171.
Focus Area 2 - State and Community Planning (select 15 hours)
Design, Family and Consumer Sciences: 310:163.
Social Work: 450:196.
Economics: 920:148**.
Political Science: 940:131*; 940:132*; 940:154; 940:171; 940:189.
History: 960:124.
Geography: 970:104;970:164;970:165;970:168.
Focus Area 3 - Public Law (select 15 hours)
Management: 150:100; 150:101.
Political Science: 940:136; 940:141; 940:142; 940:143; 940:146; 940:147; 940:154; 940:189.
Sociology: 980:128; 980:162.
Focus Area 4 - Public Personnel (select 15 hours)
Management: 150:116; 150:119; 150:130; 150:153; 150:166***; 150:168***.
Design, Family and Consumer Sciences: 310:055.
Psychology: 400:157.
Social Work: 450:163 or
Sociology: 980:130.
Political Science: 940:154; 940:189.
Geography: 970:141.
Focus Area 5 - Public Policy and Public Service (select 15 hours)
Design, Family and Consumer Sciences: 310:055; 310:163.
Health Promotion and Education: 410:160.
Social Work: 450:041; 450:121; 450:144; 450:173; 450:175.
Economics: 920:120**; 920:123**.
Political Science: 940:173;940:189.
Geography: 970:028; 970:168.
Sociology: 980:022; 980:060;980:125; 980:127; 980:129; 980:148.
Focus Area 6 - International Public Pollcy (select 15 hours)
Economics: 920:136**; 920:143**.
Political Science: 940:118; 940:119; 940:124; 940:125; 940:127; 940:143; 940:145; 940:189.
Sociology: 980:162.
*Course'selected for CORE may not be counted in this area of concentration.
**920:053 and 920:054 are prerequisites for this course. Both 920:053 and 920:054 may substitute for 920:024 which will satisfy Category 4B of the General Education Program.
***These courses have prerequisites.

## International Affairs Minor - Liberal Arts

The International Affairs minor is composed of 21 hours in political science and related disciplines. The requirements are as follows:

## Required:



Economics****: 920:136.
Political Science: 940:118;940:119;940:121;940:122; 940:123;940:125;940:127; 940:143; 940:145; 940:186.

Political Science: 940:135; 940:162; 940:164; 940:165; 940:167; 940:168.
Two of the following**: any additional electives of the courses listed above $\qquad$ 6 hours
OR
Communication: 48C:151.
Journalism: 48):151.
French: 720:124; 720:125.
German: 740:123; 740:150.
Russian: 770:141; 770:142.
Spanish: 780:120; 780:123; 780:125; 780:152.
Portuguese: 790:123.
Environmental Science: 830:130.
Economics****: 920:134; 920:137; 920:138; 920:143; 920:175.
Political Science: 940:189; 940:198.
History: 960:138; 960:154; 960:157; 960:160; 960:169;
960:170; 960:172; 960:174; 960:175; 960:177;
960:178; 960:180; 960:182; 960:187.
Geography: 970:114;970:116;970:141.
Sociology: 980:177 or 990:177.
Anthropology: 990:162.
21 hours***
*Students who have credit in 940:026 must substitute one of the following courses for 940:124 -- 940:118, 940:119, 940:125, 940:127, 940:143, 940:145, or 940:186.
**This requirement may also be met by an internship approved by the Department of Political Science. Furthermore, students who have successfully completed four semesters at the college level of any foreign language, with at least a 2.00 GPA , or demonstrate an equivalent competency level can apply three credit hours toward the fulfillment of this requirement.
***No more than nine (9) hours of political science for this minor can also be counted toward a teaching or non-teaching major in political science.
****920:053 and 920:054 are prerequisites to all 100-level Economics courses. Either 920:024 or both $920: 053$ and $920: 054$ will satisfy Category 4B of the General Education Program.

## Political Science Minor - Liberal Arts

Required:
Political Science: 940:014; 940:110; 940:124*

$\qquad$
9 hours

One of the following: 940:156, 940:158, 940:160,
or 940:161
$\qquad$
One of the following: 940:135, 940:149, 940:158, 940:162, 940:164, 940:165, 940:167, 940:168 $\qquad$ 3 hours
Electives in Political Science 3 hours 18 hours**
*Students who have credit in 940:026 must substitute one of the following courses for 940:124: 940:125; 940:127; 940:128; 940:143; 940:145.
**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 940:015 or 940:026 to meet either their general education or major or minor requirements.

## Political Science Minor - Teaching

Required:
Social Science: 900:190; 900:191 ........................................... 4 hours
Political Science: $940: 014 ; 940: 110 ; 940: 124^{*}$;
940:131 or 940:132; $940: 134$ or $940: 151$..................... 15 hours
One of the following: $940: 156,940: 158,940: 160$, or
940:161.......................................................................... 3 hours
One of the following: $940: 135,940: 149,940: 162$, 940:164, 940:165, 940:167, or 940:168 ........................... 3 hours
Electives in American Politics .no................................................... 3 hours 25-28 hours**
*Students who have credit in 940:026 must substitute one of the following courses for 940:124--940:125; 940:127; 940:128; 940:143; 940:145.
** 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 940:015 or 940:026 to meet either their general education or major or minor requirements.

## Psychology

## (College of Social and Behavioral Sciences)

## http://www.uni.edu/psych

F. Barrios, Acting Head. A. Butler, S. Davis, M. Gasser, A. Gilgen, A. Gilpin, H. Harton, C. Hildebrandt, B. Kopper, M. Losch, A. Osman, J. Somervill, R. Tan, J. Wallace, L. Walsh, D. Whitsett, J. Wong, J. Yates.

Note: The College of Social and Behavioral Sciences offers an Honors option to students majoring in one of the academic programs within the College. For further information regarding this Honors Program, please refer to page 57.

Students who want to declare psychology as a major or minor, including the teaching programs, must have completed 9 hours of psychology ( $400: x x x$ ) 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 $400: 193$, Research Experience in Psychology.

Introduction to Psychology (400:008) 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.

## Bachelor of Arts Degree Programs

## Psychology Major

Required:
Psychology: 400:008; 400:045; 400:049; 400:118
. 14 hours
Basic Processes Electives -6 hours from the following:
400:106; 400:127; 400:149; 400:150; 400:151;
400:152; 400:153; 400:155
.6 hours
Advanced Electives -9 hours from the following:
400:125; 400:142; 400:154; 400:157; 400:158;
400:162; 400:163; 400:166; 400:167; 400:170;
400:173; 400:177; 400:189 ( 3 hrs . maximum);
400:190; 400:192 ( 3 hrs. maximum); 400:193
( 3 hrs . maximum); 400:198 ( 3 hrs . maximum)................ 9 hours
Electives in Psychology ......................................................-. 2 hours
38 hours

## Psychology Major--Teaching (Extended Program)

The Psychology Teaching Major requires a minimum of 145-154 total hours to graduate.

## Required:

Psychology: 400:008; 400:045; 400:049; 400:118 .14 hours
Basic Processes Electives -6 hours from the following:
400:106; 400:127; 400:149; 400:150; 400:151;
400:152; 400:153; 400:155
.6 hours
Advanced Electives -9 hours from the following:
400:125; 400:142; 400:154; 400:157; 400:158; 400:162;
400:163; 400:166; 400:167; 400:170; 400:173; 400:177;
400:189 ( 3 hrs. maximum); 400:190; 400:192
( 3 hrs. maximum); 400:193 ( 3 hrs . maximum);
400:198 ( 3 hrs . maximum).
.. 9 hours
Electives in Psychology ..o...no................................................. 9 hours
Social Science: 900:190; 900:191 .......................................... 4 hours
42 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: <br> Psychology: 400:008; 400:045; 400:118.............................. 10 hours <br> Electives in psychology ......................................................... 15 hours <br> Psychology Minor - Teaching

 25 hoursRequired:
Psychology: 400:008; 400:045; 400:049; 400:118 ............... 14 hours
Electives in Psychology - 6 hours from the following:
400:106; 400:127; 400:149; 400:151; 400:152; 400:153;
400:155; 400:162; 400:163 .6 hours
Additional electives in Psychology (any category; see psychology major) 6 hours
Social Science: 900:190 (unless already taken in major); 900:191 4 hours 30 hours

## Program Certificate

For information on the following Program Certificate, see page 125 or contact the department office.

Gerontology Program Certificate


## Science and Science Education

## http://www.cns.uni.edu/Overview/Departments.htm|\#SCI ENCEED

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.

## Bachelor of Arts Degree Programs

## 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 endorsement in General Science and Physical Science. For completion of this major the grade point average in each of the four disciplines must be 2.00 or higher, with a 2.50 GPA in the major as a whole.

Required:
Educational Psychology: 200:116........................................ 2 hours
Elementary, Early Childhood, and Middle Level Education:
$210: 150$......................................................................... 3 hours
Science and Science Education: 820:190; 820:194; 820:195; 820:196. .6 hours
Biology: 840:051; 840:052 .................................................... 8 hours
Chemistry: 860:044; 860:048............................................. 8 hours
Earth Science: $870: 010^{*} ; 870: 021 ; 870: 022 ; 870: 031$............ 12 hours
Physics: 880:054; 880:056 ................................................... 8 hours
Electives in science: 7 hours from biology, chemistry, physics and earth science which must include 6 hours at the 100 -level or above. 7 hours 54 hours
*870:010 must be taken for four semester hours of credit.

## 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 800:046.

## Environmental/Conservation Education Emphasis

## (Extended Program)

This emphasis is designed to prepare junior high school science teachers to serve also as specialists in environmental/conservation education. A Science Teaching Plan A major with an Environmental/ Conservation Education Emphasis requires a minimum of 130 total hours to graduate.

Required:
Science and Science Education: 820:132; 820:190;

$$
\text { 820:194; 820:195; 820:196 ............................................ } 10 \text { hours }
$$

Biology: 840:051; 840:052; 840:103; 840:168; 840:169 ........ 15 hours
Chemistry: 860:044; 860:048............................................ 8 hours
Earth Science: 870:021; 870:022; 870:031; 870:035............. 12 hours
Physics: 880:054; 880:056 ................................................ 8 hours
Electives in biological and physical sciences at the 100 -level .... 3 hours
56 hours
Note: The mathematics prerequisite for one or more of the above courses is a working knowledge of algebra and trigonometry or 800:046.

Undergraduate Program Requirements Science and Science Education/Social Science

## 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 endorsement in biology, chemistry, earth science, physics, physical sciences, and general science. A Science Teaching major with Plan B (All Sciences) requires a minimum of 147 total hours to graduate. Because of 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: 820:190; 820:195; 820:196 .... 4 hours
Biology: 840:051; 840:052 ............................................................... 8 hours

Earth Science: 870:010*; 870:021; 870:022; 870:031;


 Science Education: 820:194.
Biology: 840:193.
Chemistry: 860:193.
Physics: 880:193.
Electives from:
Biology (must include botanical and zoological science) ..noo.. 8 hours

 72 hours
For completion of this major the grade point average in each of the four disciplines must be 2.00 or higher, with a GPA in the major as a whole of 2.40 .

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.

* $870: 010$ must be taken for four semester hours of credit.


## 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 800:046.

## Basic Science Minor (K-6) Teaching

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


## Social Science

## http://csbsnt.csbs.uni.edu/

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. Inquiries should be directed to the Undergraduate Coordinator, Social Science Program, College of Social and Behavioral Sciences.
Note: The College of Social and Behavioral Sciences offers an Honors option to students majoring in one of the academic programs within the College. For further information regarding this Honors Program, please refer to page 57.

## Bachelor of Arts Degree

## Program

## Soclal Science Major - Teaching

## (Extended Program)

The Social Science Teaching Major requires a minimum of 137-146 total hours to graduate.

## Required:

Social Science: $900: 190 ; 900: 191$
.4 hours
Three areas of study in the social sciences are required. Two of these areas require a minimum of 21 hours, and one requires a minimum of 18 hours. Only one field of history (American or World) may be selected as one of the three areas of the major ..cco......... 60 hours 64 hours

## American Government

Political Science: 940:014; plus 12 (or 15) hours in American Government and 3 hours in Comparative Government or International Relations.

Eligible American Government courses: 940:015; 940:112;
$940: 120 ; 940: 127 ; 940: 129 ; 940: 131 ; 940: 132 ; 940: 134 ; 940: 136 ;$
940:138; 940:141; 940:142; 940:146; 940:147; 940:148; 940:149;
940:150; 940:151; 940:153; 940:155; 940:166; 940:171; 940:172;
940:173; 940:174; 940:176.
Eligible Electives in Comparative Government or International Relations: 940:124; 940:125; 940:135; 940:143; 940:145; 940:149; 940:164; 940:165; 940:167; 940:168.

COURSES THAT MAY BE USED TO MEET REQUIREMENTS IN EITHER OF THE ABOVE CATEGORIES, BUT NOT BOTH: 940:127; 940:155.

## American History

History: 960:014; 960:015; plus 12 (or 15) hours in American history from the following courses: $960: 102 ; 960: 116 ; 960: 122 ; 960: 124$; $960: 130 ; 960: 131 ; 960: 134 ; 960: 136 ; 960: 137 ; 960: 138 ; 960: 139$; $960: 140 ; 960: 141 ; 960: 142 ; 960: 144 ; 960: 145 ; 960: 146 ; 960: 147$; 960:150; 960:166; 960:167; 960:177; 960:189.

## Anthropology

Anthropology: 990:010; 990:011; plus 12 (or 15) hours in anthropology.

## Economics

Economics: 920:053*; 920:054*; 920:103; 920:104; plus 6 (or 9) hours in economics except 920:020; 920:024; 920:070.
*Both 920:053 and 920:054 will substitute for $920: 024$ which will satisfy Category 4B of the General Education Program.

## Geography

Geography: 970:026; 970:040; 970:141 or 970:142; plus 9 (or 12) hours in geography from the following courses: 970:010; 970:061; 970:101; 970:104; 970:111; 970:114; 970:116; 970:119; 970:127; 970:144; 970:151; 970:164; 970:171; or other courses deemed appropriate by the Department Head and Geography Advisor.

## Psychology

Psychology: 400:008; 400:118; plus 12 (or 15) hours in psychology.

## Sociology

Sociology: 980:058; plus 15 (or 18) hours of sociology from the following courses: 980:060; 980:080; 980:105; 980:108; 980:111; 980:121; 980:123; 980:125; 980:127; 980:130; 980:135; 980:138; 980:148; 980:150; 980:160; 980:162; 980:164; 980:165; 980:167; 980:168; 980:169; 980:170;980:171; 980:172;980:173; 980:176; 980:177.

## World History

History: One course from Category A (960:101, 960:102, 960:151, $960: 152,960: 153,960: 158,960: 164,960: 171,960: 173)$ and one course from Category B (960:154, 960:155, 960:156, 960:157, 960:160, $960: 161,960: 162,960: 165,960: 169,960: 170,960: 172$, 960:174). Plus 12 (or 15) hours in European, Asian, Latin American and/or African History from the following courses: 960:101; 960:103; 960:104; 960:151; 960:152; 960:153; 960:154; 960:155; $960: 156 ; 960: 157 ; 960: 158 ; 960: 160 ; 960: 161 ; 960: 162 ; 960: 163$; 960:164; 960:165; 960:169; 960:170; 960:171; 960:172; 960:173; 960:174; 960:175; 960:176; 960:178; 960:180; 960:181; 960:182; 960:183; 960:187; 960:189; 960:192.

## Social Work

## (College of Social and Behavioral Sciences)

## http://csbsnt.csbs.uni.edu/dept/socwork

T. Keefe, Head. M. Boes, T. Capshew, W. Downs, J. Hansom, C. Singleton Henkin, J. McCullagh, S. McDevitt, C. Odiah, S. Ringel, C. Roberts, R. Schneider, K. van Wormer.

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.
Note: The College of Social and Behavioral Sciences offers an Honors option to students majoring in one of the academic programs within the College. For further information regarding this Honors Program, please refer to page 57.

# Bachelor of Arts Degree <br> Program 

## Social Work Major


*450:184 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.
*** 400:049 or 800:072 may be substituted for 980:080.
A minimum cumulative grade point average for all college work of 2.20 and a 2.20 grade point average for all UNI courses taken is required for admission to the Social Work major. A minimum UNI grade point average of 2.20 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 450:184, a student must be a Social Work major and the following must be present: senior standing ( 90 or more credit hours); completion of 450:091 and 450:192 with a minimum grade of $C$ in each course; 450:042; 450:164; 450:185; and a minimum UNI grade point average of 2.20 .

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

## Program Certificates

For information on the following Program Certificates, see page 125 or contact the department office.

Social Work Certificate Substance Abuse Counseling Certificate

Undergraduate Program Requirements Sociology, Anthropology, and Criminology

## Sociology, Anthropology and Criminology

## (College of Social and Behavioral Sciences)

## http://csbsnt.csbs.uni.edu/dept/sac

K. Crew, Head. S. Allbee, P. Baker, G. Bramlet-Hecker, C. Bartollas, C. Dunn, N. Durham, R. Gorton, M. Grey, M. Harris, T. Hill, M. Leiber, J. Lowell, G. Lutz, K. Mack, E. Paoline, A. Podolefsky, R. Roberts, K. Sandstrom, K. Schmidt, M. Shott, J. Stockdale, A. Woodrick, S. Yadava.

Note: The College of Social and Behavioral Sciences offers an Honors option to students majoring in one of the academic programs within the College. For further information regarding this Honors Program, please refer to page 57.

## Bachelor of Arts Degree

## Programs

## Anthropology Major

Required:
Sociology and Anthropology: 980:080; 990:010; 990:011; 990:141 or 990:142 or 990:143; 990:153 or 990:154; 990:160 or 990:161; 990:176; 990:177 .25 hours

Electives in Sociology ............................................................. 3 hours
37 hours

## Anthropology Major - Teaching

## (Extended Program)

The Anthropology Teaching Major requires a minimum of 132-138 total hours to graduate.

Required:
Social Science: 900:190; 900:191 ................................................ 4 hours

Anthropology: 990:010; 990:011.................................................. 6 hours
Electives in anthropology ............................................................. 24 hours 38 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 990:145, 990:184, 990:189, and 990:198 may be applied toward this major.

## Criminology Major

Required:
Sociology: 980:022; 980:058; 980:080; 980:108; 980:126; 980:127; 980:175 .22 hours
Twelve hours from the following............................................................................................
Sociology: 980:112; 980:116;980:119;980:122;
980:123; 980:124; 980:128; 980:129; 980:131;
980:132; 980:151; 980:162/990:162;
980:169/990:169; 980:181.

```
Six hours from the following .6 hours
Political Science: 940:141; 940:142; 940:146; 940:147.
Sociology: 980:121/450:121; 980:130; 980:145; 980:160; 980:161; 980:165; 980:178; 980:184; 980:198.

Note: Students majoring in Criminology must maintain a \(2.50 \mathrm{GPA}_{1}\) across all courses taken in the major, including transfer credits Students majoring in Criminology should take 980:022 before taking| any 100 -level courses within the major.

\section*{Sociology Major}

Required:
Sociology: 980:058; 980:060; 980:080; 980:108; 980:170 .... 16 hours
Electives in sociology (980:x0x) ................................................. 15 hours
Electives in anthropology (990:00x) .. 3 hours
34 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 980:145, 980:184, \(980: 189,980: 198,990: 145,990: 184,990: 189\), and \(990: 198\) 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.

\section*{Sociology Major - Teaching}

\section*{(Extended Program)}

The Sociology Teaching Major requires a minimum of 132-138 total hours to graduate.
Required:
Social Science: 900:190; 900:191 .......................................... 4 hours
Sociology: 980:058; 980:060; 980:080; 980:108; 980:170 .... 16 hours
Anthropology: 990:011 .......................................................... 3 hours
Electives in sociology
(at least 9 hours must be 100-level courses) ........................ 12 hours
35 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 980:145, 980:184, 980:189, and 980:198 may be applied toward this major.

Not more than 18 semester hours of credit taken within the Criminology Major may also be counted for credit on this major.

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

\section*{Anthropology Minor}

Required:
Anthropology: 990:010; 990:011........................................... 6 hours
One of the following area courses: 990:132;990:136;
990:137 ............................................................................. 3 hours
Electives in anthropology ............................................................ 6 hours
15 hours
Anthropology Minor - Teaching
Required:Social Science: 900:190 (unless already taken in major);900:191... 90.190 (unless already taken in major);4 hours
Anthropology: 990:010;990:011 ..... 6 hours
Electives in anthropology .....  18 hours

\section*{Criminology Minor}
Required:
Sociology: 980:022; 980:058;980:127; 980:175 ................... 12 hours
Electives; ( 9 hours from the following)
Sociology: 980:116; 980:119;980:122; 980:123; 980:124;
\(\quad 980: 128 ; 980: 129 ; 980: 131 ; 980: 132 ; 980: 151 ;\)
\(980: 162 / 990: 162 ; 980: 169 / 990: 169 ; 980: 181\).................... 2 hours
Note: Not more than six (6) semester hours of credit taken within the
Sociology Teaching major or Sociology minor may be counted for cred-
it on this minor.
Not more than nine (9) hours of credit taken within the Sociology
Liberal Arts or Anthropology majors may be counted for credit on this
minor.

\section*{Sociology Minor}

Required:
Sociology: 980:058; 980:060 ........................................................... hours
 21 hours
/Not more than nine (9) semester hours of credit from 980:145, 980:184, 980:189, and 980:198 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.

\section*{Sociology Minor - Teaching}

Required:
Social Science: 900:190 (unless already taken in major); 900:191 4 hours
Sociology: 980:058; 980:060 .................................................... 6 hours
Electives in sociology ................................................................. 18 hours 28 hours
Not more than nine (9) semester hours of credit from 980:145, 980:184, 980:189, and 980:198 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.

\section*{Program Certificates}

For information on the following Program Certificates, refer to pages 126 and 127 or contact the department office.

\section*{Conflict Resolution Certificate}

Skills in Social Research Certificate

\section*{Special Education}

\section*{(College of Education)}

\section*{http://www.uni.edu/coe/specialed}
S. Alper, Head. M. Agram, S. Etscheidt, D. Gallagher, C. Kliewer, F. Kohler, T. Little, C. Macfarlane, K. Meredith, K. Mills, D. Raschke, P. Sitlingtom, C. Watkins,

\title{
Bachelor of Arts Degree Programs
}

\section*{Early Childhood Special Education Minor--Teaching}

\section*{Required:}

Special Education: 220:140; 220:141; 220:153
.9 hours
Special Education: 220:192 (3 hrs., Practicum with Children with Disabilities in Least Restrictive Environment); 220:192 (1 hr., Practicum in Home Intervention)

4 hours 13 hours

\section*{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: 220:170; 220:174; 220:184; 220:192 (2-3 hrs.)
.11-12 hours
Major requirements:
Special Education: 220:142 or 220:143; 220:151; 220:153; 220:167; 220:183; 220:187; 220:192 (4-6 hrs.)

21-23 hours
Health Promotion and Education: 410:011 or equivalent American Red Cross certification in First Aid and CPR . 2 hours
Communicative Disorders: 51C:160................................2 hours
36-39 hours

\section*{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).

\section*{Behavioral Disorders, K-6 Emphasis \\ Required: \\ Special Education core: 220:170; 220:174; 220:184; 220:192 (2-3 hrs.) \\ .11-12 hours \\ Minor requirements: Educational Psychology: 200:176 .................................. 3 hours Special Education: 220:142 (Corequisite: 220:192); 220:146. 8-2 hours \\ 22-24 hours}
Behavioral Disorders, 7-12 Emphasis

Required:

Special Education core: 220:170; 220:174; 220:184;
 220:192 (2-3 hrs.)
 11-12 hours
 Minor requirements:

\(\qquad\)

Special Education: 220:143 (Corequisite: 220:192); 220:147; 220:151.

Undergraduate Program Requirements Special Education/Teaching
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Learning Disabilities, K-6 Emphasis
Required:
Special Education core: 220:170;220:174; 220:184;
220:192 (2-3 hrs.)
11-12 hours
Minor requirements:

```

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    Special Education: 220:146 (Corequisite: 220:192
        [2-3 hrs.])
        .5-6 hours
    Special Education: 220:142 or
    Reading and Language Arts: 230:147
        (Corequisite: 230:192; prerequisites: 230:116
        or 230:130; 230:140.) or
    Communicative Disorders: 51C:106 (Prerequisites
        waived for special education majors and minors.)
        or
    Mathematics: 800:192
        (Prerequisite: 800:134 or 800:190)..aco.ono............._ 3 hours
                22-24 hours
    ```

\section*{Learning Disabilities, 7-12 Emphasis}

Required:
Special Education core: 220:170; 220:174; 220:184;
220:192 (2-3 hrs.)
.11-12 hours
Minor requirements:
Educational Psychology: 200:176 \(\qquad\)
Special Education: 220:147;
(Corequisite: 220:192 [2-3 hrs.]); 220:151 ..............8-9 hours
Special Education: 220:143 or
Reading and Language Arts: 230:147
(Corequisite: 230:192; prerequisites: 230:116 or 230:130; 230:140.) or
Communicative Disorders: 51C:106 (Prerequisites
waived for special education majors and minors.) or
Mathematics: 800:192
(Prerequisite: 800:134 or 800:190) .....oco......o........ 3 hours 25-27 hours

\section*{Mental Disabilities Mild/Moderate, K-6}

\section*{Emphasis}

Required:
Special Education core: 220:170; 220:174; 220:184;
220:192 (2-3 hrs.)
.11-12 hours
Minor requirements:
Special Education: 220:142; 220:144; 220:167;
220:183; 220:192 (4-6 hrs.) ......................................-. 17 hours 26-29 hours

\section*{Mental Disabilities Mild/Moderate, 7-12 \\ Emphasis}

Required:
Special Education core: 220:170; 220:174; 220:184; 220:192 ( \(2-3 \mathrm{hrs}\).)

11-12 hours
Minor requirements:
Special Education: 220:143; 220:145; 220:151;
220:167; 220:183; 220:192 (4-6 hrs.)
.18-20 hours
29-32 hours

\section*{Program Certificates}

For information on the following Program Certificates, refer to page 126 or contact the department office.

\section*{Multicategorical Resource Teaching, K-6 \\ Multicategorical Resource Teaching, 7-12}

\section*{Teaching}

\section*{(College of Education)}

\section*{http://www.uni.edu/coe/teaching}
R. Kueter, Head.

\section*{Price Laboratory School}
W. McConnaha, Director. M. Balong, M. Betterton, S. Bock, C. Bollwinkel, S. Buckwalter, D. Cooney, L. Countryman, K. CouchBreitbach, J. Cryer, D. Darrow, N. Davidson, A. DeVries, L. Dykstra, L. Ensworth, M. Fanelli, R. Findlay, L. Graber, M. Guenther, J. Hartman, R. Hawbaker, B. Heitzman, L. Hoeft, P. Hortom, D. Kettner, R. Knivsland, J. Krumbhols, R. Lee, A. Leonhart, J. Maltas, C. Matthews, T. McDonald, K. Miller, B. Myers, C. Nielsen, V. Oleson, N. Phipps, D. Primrose, M. Schneider, L. Sharp, J. Smith, L. Smith, A. Spurr, J. Stone, C. Struck, A. Swann, M. Swanson, J. Sweigert, J. Tagtow, D. A. Tallakson, D. R. Tallakson, K. Treiber, J. Uhlenberg, L. Upham, R. Vanderwall, P. Vincent, P. Waack, L. Weber.

\section*{Office of Student Field Experiences}
J. Beckman, T. Blaine, K. Blecha, D. Briggs, C. Canning, R. Carson, R. Hawkes, J. Kelly, K. Krueger, F. Miller, J. Montgomery, J. Noboa, K. Oakland, B. Riess, L. Rosulek, M. Schroeder, D. Simmons, R. Stahlhut, C. Timion.

The Department of Teaching is responsible for the administration of multi-faceted programs of Price Laboratory School (PLS) and the Office of Student Field Experiences (OSFE).

\section*{Price Laboratory School}

\section*{http://www.uni.edu/plschool/index.html}

The Price Laboratory School conducts a program of instruction for pupils enrolled in grades \(\mathrm{N} / \mathrm{K}\) 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.

The Laboratory School 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 lowa elementary and secondary schools, the Laboratory School regularly provides professional development activities for Iowa educators including: 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.

\section*{Student Field Experiences}

\section*{http://www.uni.edu/stdteach}

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 twelvehour 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) from the 220:192 Experience in Special Education (see page 184). Student teaching is a twelve-semester-hour offering. An additional three semester hours of credit will be received for the Human Relations course, 280:070, which accompanies the student teaching semester.

Special area majors (i.e., art, ESL, 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 (280:1xx) 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 280:1xx 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 46. A student must also have been fully admitted to the 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.

\section*{Professional Development for Educators}

\section*{http://www.uni.edu/profdev}

Seminars on topics relevant to the practical application of knowledge and skills in a range of educational settings. Offered through a web-based format. Learning facilitated by online moderators, video tapes, and e-mail discussions.

\section*{Theatre}

\section*{(College of Humanities and Fine Arts)}

\section*{http://www.uni.edu/chfa/THEA.HTML}
S. Taft, Head. G. Berghammer, C. Colburn, L. Curtis, J. Edelnant, R. Glockner, C. Goatley, T. Jones, E. Lange, J. Morrison, A. Wilson.

\section*{Majors}
1. Students may indicate their interest in majoring in Theatre any time after their admission to UNI. Formal indication of interest shall be made via the Declaration of Curriculum form at which time the student will be considered a "pre-major" and will be assigned a "premajor 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 and Fundamentals of the Theatre Experience I and II. Major course work shall be limited to courses as recommended by her/his freshman advisor and program policy.
3. 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 48C:001, 490:010, 490:011, and 620:005/ 620:015/620:034).
b. 2.50 average GPA in the major.
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.
4. 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 \(48 \mathrm{C}: 001\) (Ọral Communication), 620:005/620:015/620:034, 490:010 (Fundamentals of the Theatre Experience I), and 490:011 (Fundamentals of the Theatre Experience II) were satisfied at their junior colleges.

\section*{Undergraduate Program Requirements}

Theatre
5. 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. \#3.

\section*{Minors}
1. Admission to a Theatre Minor requires a 2.50 cumulative GPA in at least 24 hours of course work (to include 48C:001, 490:010, 490:011, and 620:005/620:015/620:034).

\section*{Bachelor of Arts Degree \\ Programs}

\section*{Communication - Theatre Major Teaching}

This teaching major in communication and theatre is offered jointly by the departments of Communication Studies and Theatre.

Required:
Communication: 48C:001; 48C:004; 48C:011;
48C:015; 48C:024; 48C:031; 48C:071; 48C:074;
48C:141; 48C:187; 48C:188
31 hours
Theatre: 490:001; 490:015; 490:134 (these three courses may be taken in any sequence; all are prerequisites for 490:063); 490:063; 490:108 \(\qquad\)
Applied Activity Option: one hour from: 48C:091/48C:191 or 48C:093/48C:193 or 490:050 .onooooool hour
Electives: ( 3 hours from the following) ..o.o.ano........................... 3 hours
Communication: \(48 \mathrm{C}: 108\) or 48 C : 109 or \(48 \mathrm{C}: 110\); 48C:122; 48C:124; 48C:126; 48C:144; 48C:174; 48C:176; 48C:178.
Theatre: 490:040; 490:060; 490:061; other courses are available, consult with your advisor.

49 hours

\section*{Theatre Major}

Required:
Production Core:
Theatre: 490:010; 490:011; 490:050 ( 2 requiredonly ONE in performance); 490:054; 490:056; 490:066 (2 required); 490:150 (2 requiredonly ONE in performance); 490:153.
.23 hours
Class Core:
Theatre: 490:015; 490:024; 490:060; 490:061; 490:063; 490:134

18 hours
One Focus Area listed below
15-18 hours
56-59 hours

\section*{Performance ( \(\mathbf{1 5}\) hours):}

490:121; 490:122; 490:123; 490:124; 490:125 (1 required); 490:126; 490:127.
Design and Production ( 18 hours):
490:040; 490:140 (3 required); 490:142 (Design: Sets, Lights or Costumes--all 3 required); 490:144.
Theatre Education (15 hours):
\(490: 101 ; 490: 102 ; 490: 104 ; 490: 106\); one elective outside the department.

\section*{Musical Theatre (21 hours): (Extended Program)}

The Musical Theatre focus area requires a minimum of 128 total hours to graduate.

540:049 (6 hours required); 595:129;
580:011; 580:012; 580:015; 580:016; 580:025; 580:026; 420:013;
Select two from the following: 420:013 (Tap); 420:013 (Modern); 420:013 (Jazz); 420:013 (Ballroom).
1. A.minor (or additional elective credits) in Dance is strongly suggested.
2. Students who select this focus area must pass a piano proficiency requirement before graduating. This requirement may be met by passing the piano proficiency exam, or by completing 540:047 Group Piano through Level II ( 2 hrs .).

\section*{Specialized Studies (15 hours):}

A selection of courses from all focus areas chosen in consultation with an advisor. Must receive departmental approval.

\section*{Communication - Theatre Minor Teaching}

This teaching minor in Communication and Theatre is offered jointly by the departments of Communication Studies and Theatre.

\section*{Required:}

Communication: 48C:001; 48C:004; 48C:011; 48C:024;
48C:074; 48C:187 .o.. 18 hours
Option A or B 10-12 hours
Option A: Communication ( 10 hours)
Communication: one hour from 48C:091/
48C:191 or 48C:093/48C:193; 48C:015; 48C:071.
Theatre: 490:101 or 490:106.
Option B: Theatre ( 12 hours)
Theatre: 490:001; 490:015; 490:134;
(these three classes must be taken
before 490:063); 490:063
28-30 hours

\section*{Communication - Theatre Minor}
(K-6) - Teaching
This teaching minor in Communication and Theatre is offered jointly by the Departments of Communication Studies and Theatre. Required:

Communication: 48C:001; 48C:004 or 48C:071; 48C:011; 48C:020 or 48C:024; 48C:141; 48C:184

16 hours
Theatre: 490:101; 490:104 or 490:106 6 hours 22 hours

\section*{Theatre Minor}

Required:
Production Core: 490:010; 490:011; 490:015; 490:050 (1 required); 490:150 (1 required) (only one Practicum in performance)
.13 hours
Class Core:
A minimum of 9 credit hours in Theatre as approved by the department.

2 hours

\section*{Program Gertificate Requirements}

\section*{Undergraduate Program}

\section*{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.

\section*{Department of Communication Studies}

\section*{Certificate in Public Speaking}

This Certificate is designed to prepare students to become effective speakers and presenters. The Certificate is focused on skilled development and allows the student to gain experience in message construction and delivery.

\section*{Required:}

Communication Studies: 48C:011; 48C:071; 48C:171; 48C:166 or other Communication Studies courses as approved by the department 12 hours
Electives from one of the following courses: ..... 3 hours

Communication Studies: 48C:123; 48C:178; 48C:180 or \(48 \mathrm{C}: 183\) or 48 C : 185 or \(48 \mathrm{C}: 189\) or \(48 \mathrm{C}: 190\).

\section*{Department of Computer Science}

\section*{Certificate in Computer Applications}

Required:
Computer Science: 810:021; 810:022; 810:023 ..osoo........ocooso...9 hours
Electives:..................................................................................................................
Computer Science: 810:030; 810:088.
Other courses pre-approved by the Computer Science Department.

12 hours

\section*{Department of Design, Family and Consumer Sciences}

\section*{Certificate Program in Long Term Care}

The Certificate Program in Long Term Care prepares students for employment with the elderly in long term care facilities in a variety of professional positions. This interdisciplinary program is coordinated in the Department of Design, Family and Consumer Sciences.

Required:
Accounting: 120:030 3 hours
Management: 150:153.......................................................... 3 hours
Design, Family and Consumer Sciences: \(310: 154^{*}\).............. 3 hours
Health Promotion: 410:060 (correspondence only) .o.o........ 2 hours

Social Work: 450:173*** and either 450:172 or 450:174 ...... 6 hours
Religion: 640:194 OR

23 hours

\section*{Department of Geography}

\section*{Certificate in Cartography and Geographic Information Systems (GIS)}

The Program Certificate in Cartography and Geographic Information Systems (GIS) is designed to give the student a substantial background in the fields of cartography and geographic information systems. Students completing the program will be familiar with the terminology, techniques and theory of cartography and GIS principles. Hands-on computer experience is a major feature of many of the courses. The program complements majors in disciplines other than geography while increasing the geography major's preparation for the job market.

The student must earn a grade point average of at least 3.00 in the courses taken for the certificate. It is the responsibility of the student to notify the Head of the Department of Geography during or immediately after the semester in which the course requirements will be or have been completed.

Required:

Electives.
6 hours
Two courses selected from:
Geography: 970:160; 970:163; 970:173; 970:175.
15 hours
*970:061 is a prerequisite for this course.

\section*{School of Health, Physical Education, and Leisure Services}

\section*{Global Health Certificate}

Required:
Health Promotion and Education: 410:138; 410:147; 410:161; 410:197
. 8 -10 hours
Electives selected from the following ........................................ 6 hours
Leisure Services: 430:030
Social Work: 450:142
Communication Studies: 48C:151
Social Science: 900:041; 900:080
Political Science: 940:124; 940:125
Sociology: 980:045; 980:111; 980:130; 980:148
Anthropology: 990:011;990:158;990:160; 990:167;
990:168; 990:169; 990:177
14-16 hours

\section*{Outdoor Recreation Certificate}

Outdoor Recreation combines the natural environment, perceived risk, and human relations skills to enhance personal growth, physical skills, and socio-emotional skills. The certificate is 15 credit hours in length ( 12 credits of theory-based courses and 3 credits of various skills areas), and is open to any major.

\footnotetext{
Required:
Leisure Services theory courses: 430:050; 430:130; 430:143; 430:146 12 hours

15 hours
}

Program Certificate Requirements Undergraduate Program Certificates

\section*{Tourism Certificate}

The Tourism Certificate program is jointly offered by the College of Business Administration and the College of Education, School of HPELS. This program is administered by the Leisure, Youth and Human Services Division within the School of HPELS, College of Education. Requirements for the Tourism Certificate are listed on page 127 under College of Business Administration/College of Education, or interested students should contact the Division of Leisure, Youth and Human Services, Tọurism Advisor, 203 WRC.

\section*{Youth Agency Administration Program Certificate}

Students completing all hours for the Youth Services Administration minor plus 430:187 Internship (8 hours) and 430:184 Senior Project (1 hour) are eligible for the Youth Agency Administration Certificate in American Humanics, Inc. Requirements are as follows:

Required:
Youth and Human Service Administration: 43Y:060; 43Y:150; 43Y:151; 43Y:154; 43Y:155 ............................... 15 hours
Leisure Services: 430:188 ....................................................... 2 hours

Leisure Services Internship: 430:187....................o.o............. 8 hours 26 hours

\section*{Department of Industrial Technology}

\section*{Technology Management Certificate}

Required:
Industrial Technology: 330:020; 330:065 (3 hrs.); 330:142; 330:143; 330:187; 330:196 \(\qquad\) 18* hours
*800:072 is a possible prerequisite for 330:142 and 330:143.

\section*{Department of Management}

\section*{Training and Development in Business} Certificate
Required:
Management: 150:113; 150:116; 150:119*; 150:130 ........ 12 hours

Management: 150:169**; 150:179**
*Graduate students must take 150:262 instead of 150:119. 150:262 has prerequisites of consent of MBA Director and 150:153 or equivalent.
** \(150: 169\) or \(150: 179\) must be taken only after taking \(150: 116\) or \(150: 130\). \(150: 187\) may be used as a substitute for \(150: 169\) or \(150: 179\), with consent of instructor. 150:187 requires additional prerequisites. ***In addition to the required 15 hours, \(150: 113\) has as a prerequisite 620:005 or 620:015, either of which will satisfy Category 5A of the General Education Program.

\section*{Department of Marketing}

\section*{Certificate in Marketing Research and Consulting}

Required:
Marketing Research: 130:108* ..o.....nomoneono............................. 3 houro
Marketing: 12 semester hours of Professional Development Training as a Program Associate with Strategic Marketing Services. Credits must be gained through any combination (maximum of 6 credit hours per semester) of the following Marketing courses: \(130: 169 ; 130: 179 ; 130: 182^{* *}\); 130:186 12 hours
Electives from the following

Marketing: 130:106; 130:142; 130:177; 130:178; 130:191
*130:108 has prerequisites of 920:024 or 920:053, 130:101, 150:080 800:072 or 800:092, 920:020, and 920:070. Taking 800:072 or 800:092 will satisfy Category 5C of the General Education Program. Non-busil ness majors who take 920:024 or both 920:053 and 920:054 will satisff the requirements for Category 4 B of the General Education Program.
** \(130: 182\) has a prerequisite of 130:108.
Students should contact the Director of Strategic Marketing Serviced CBB Room 5, and the Marketing Department, CBB Room 338.

\section*{Department of Modern Languages}

\section*{Certificate in French Language Studies}

Required:
15 semester hours of course work, selected from the following. 15 hours
French: 720:001; 720:002; 720:011; 720:051; 720:061; 720:101; 720:102; 720:103.

A written and/or oral proficiency examination at the discretion of the certificate committee.

\section*{Certificate in German Language Studies}

Required:
15 semester hours of course work, selected from the following.
German: 740:001; 740:002; 740:003; 740:004; 740:011; 740:012; 740:013; 740:014; 740:100; 740:101; 740:103; 740:104.

15 hours
A written and/or oral proficiency examination at the discretion of the certificate committee.

\section*{Certificate in Japanese Language Studies}

Required:
15 semester hours of course work, selected from the following 15 hours
Japanese: 730:001; 730:002; 730:011
OR other approved Japanese courses.
A written and/or oral proficiency examination at the discretion of the certificate committee.

\section*{Certificate in Portuguese Studies}

Required:
15 semester hours of course work, selected from
the following,........................................................ 15 hours
Portuguese: 790:001; 790:002; 790:010; 790:020; 790:031
or any 620:031 section cross listed with 790:031;
790:050; 790:060; 790:101; 790:109 or
course pre-approved by department.
A final essay and interview are required.

\section*{Certificate in Russian Language Studies}

\section*{Required:}

15 semester hours of course work, selected from the following.

15 hours
Russian: 770:001; 770:002; 770:003; 770:004; 770:011; 770:012; 770:013; 770:014; 770:091; 770:101;770:103.

15 hours
A written and/or oral proficiency examination at the discretion of the certificate committee.

\section*{Certificate in Spanish Language Studies}

Required:
12 semester hours of course work, selected from the following .12 hours
Spanish: 780:011; 780:052; 780:053; 780:062; 780:091; 780:100; 780:101; 780:103; 780:104; 780:105; 780:179.

12 hours
A written and/or oral proficiency examination at the discretion of the certificate committee.

\section*{International Commerce Certificate}

Required:
A major or minor in a Modern Language.
The following courses:

Management: 150:153; 150:189 ....................................... 6 hours

Economics: 920:024................................................................... 3 hours
Elective course in culture and civilization in the respective
modern language, or other approved course ..nemosenemoen \(\frac{3}{3}\) hours
18 hours

\section*{Certificate in Translation (in French, German, Portuguese, Russian or Spanish)}

Required:


\section*{Department of Psychology Gerontology Certificate}

\section*{Required:}


Practicum experience in Gerontology (this includes 150 contact hours working with older adults. If student has an appropriate practicum experience in their major, this requirement is waived).
Electives: at least one course from each of the following three categories 9 hour 15 hours

\section*{I. Intra-Interpersonal Communications:}

Design, Family and Consumer Sciences: 310:052; 310:153; 310:154.
Social Work: 450:193.
Religion: 640:194.
II. Public Policy and Aging:

Design, Family and Consumer Sciences: 310:070; 310:177.
Leisure Services: 430:166.
Social Work: 450:173.
III. Health and Environmental Issues:

Design, Family and Consumer Sciences: 310:055; 310:130; 310:152.
Health Promotion and Education: 410:125; 410:172.
* \(400: 173\) has prerequisite of \(400: 008\). 400:008 may be used to satisfy Category 4B of the General Education Program.
**980:125 has prerequisites of 980:058 and 980:060. 980:058 may be used to satisfy Category 4A and 980:060 may be used to satisfy Category 4C of General Education Program.

\section*{Department of Social Work}

\section*{Social Work Certificate}

Students who graduate with a major in Social Work from UNI receive a Bachelor of Arts degree with a Social Work Certificate. For information on the Social Work Major see page 117.

\section*{Substance Abuse Counseling Certificate}

The UNI Certificate program is designed to prepare Social Work majors for the field of substance abuse treatment. Education and training received partially fulfills State certificate requirements. To receive a UNI certificate, a student must complete the requirements for the Social Work major (including graduation with the B.A.) and the specific course work and field instruction experiences as indicated.

> Required:
> Social Work: 450:171
> 3 hours
> Electives: three of the following courses....................................... 9 hours
> Psychology: 400:170.
> Social Work: 450:121; 450:142; 450:143; 450:174; 450:175.

\(\overline{12}\) hours
Field Instruction: Students will spend a total of 600 hours in an inpatient or outpatient treatment program. Field placement must be scheduled in the fall or spring. Experience with individuals, families, and groups will be required.

\section*{Department of Sociology, Anthropology, and Criminology}

\section*{Skills in Social Research Certificate}

Required:
Sociology: 980:080; 980:108; 980:178/990:178 ..... 10 hours
Nine hours from the following ..... 9 hours
Sociology: 980:160; 980:165Anthropology: 990:152; 990:171.
Three hours from the following ..... 3 hours
Sociology/Anthropology: 980:145/990:145;980:184/990:184; 990:172.
22 hours

\section*{Department of Special Education}

\section*{Multicategorical Resource Teaching, K-6 Certificate}

Students who hold or will be holding an Early Childhood, Elementary, or Secondary teaching certificate may receive Multicategorical Resource Room, Mild K-6 Endorsement by satisfactorily completing the following program from the University of Northern Iowa.

\section*{Required:}

Special Education: 220:050; 220:142; 220:146; 220:155;
220:170; 220:174; 220:184; 220:192 (2-3 hrs.);
220:240; 220:245; 220:290 (3 hrs. - section 16) ............... \(32-33\) hours
One of the following: 2-3 hours
Special Education: 220:290 (2-3 hrs. - a second experience as with the previous 220:290 section 16)
OR
Teaching: 280:135 (2-3 hrs. - a traditional, intense student teaching experience in the elementary multicategorical resource setting.)
\(\overline{34-36}\) hours

\section*{Notes: Program Prerequisites}
1. Although some program courses individually can be taken at the undergraduate level, program completion is not possible until the student is at the GRADUATE LEVEL.
2. Before program completion and recommendation for certification, the student must hold certification in the teaching of at least one of the following mildly handicapping conditions: Learning Disabilities (LD), Mental Disabilities (MD), or Behaviorally Disordered (BD).

\section*{Multicategorical Resource Teaching, 7-12 Certificate}

Students who hold or will be holding an Early Childhood, Elementary \(\{\) or Secondary teaching certificate may receive Multicategorical Resource Room, Mild 7-12 Endorsement by satisfactorily completing the following program from the University of Northern Iowa.
Required:
Special Education: 220:050; 220:143; 220:147; 220:151;
220:155; 220:170; 220:174; 220:184; 220:192 (2-3 hrs.);
\(220: 240 ; 220: 245 ; 220: 290\) ( 3 hrs . - section 17) .....oosono... \(35-36\) hours
One of the following: ....aco......................................................-3 hours
Special Education: 220:290 (2-3 hrs. - a second experience
as with the previous 220:290 - section 17)
OR

Teaching: 280:135 (2-3 hrs. - a traditional, intense student teaching experience in the secondary multicategorical resource setting.)

37-39 hours

\section*{Notes: Program Prerequisites}
1. Although some program courses individually can be taken at the undergraduate level, program completion is not possible until the student is at the GRADUATE LEVEL.
2. Before program completion and recommendation for certification, the student must hold certification in the teaching of at least one of the following mildly handicapping conditions: Learning Disabilities (LD), Mental Disabilities (MD), or Behaviorally Disordered (BD).

\section*{College of Business Administration}

\section*{Certificate in International Business}

The Certificate in International Business is available to College of Business Administration students majoring in Accounting, EconomicsBusiness Analysis Emphasis, Finance, Management, Management Information Systems, Marketing, and Real Estate and to students taking the General Business Concepts minor. The purpose of the Certificate is to provide students who are interested in international business with an education that will assist them in meeting their career goals. For more information and to enroll in this program, students must contact Dr. Taggart Frost, College of Business Administration.

\footnotetext{
1. International Business \(\qquad\) 3 hours
Completion of one of the College of Business
Administration majors identified above or the General Business Concepts Minor; 150:189.
2. World Affairs 3 hours
One of the following:
Political Science: 940:026*;940:124;940:149.
Geography: 970:040*; 970:101; 970:114.
3. Foreign Language, History, and Culture . \(\qquad\) 7-20 hours
Select one of language options below.
SPANISH ( 8 - 20 hours)
780:001**; 780:002**; 780:011.
One of the following: 680:123*; 780:025;
780:125; 780:152; 790:031*; 940:167; 960:176;960:180.
FRENCH (7-19 hours) 720:001**; 720:002**; 720:011. One of the following: 720:031*;720:111;960:174.
GERMAN (8-18 hours)
740:001**; 740:002**; 740:003**; 740:004**; 740:011; 740:012.
One of the following: 740:031*; 740:111; 740:123***;
}

PORTUGUESE (6-18 hours) 790:001**; 790:002**; 790:010**; 790:020**; 790:050; 790:060. One of the following: 680:123*; 790:031*; 790:123***; 940:167; 960:176; 960:180.
RUSSIAN (8-18 hours) \(770: 001^{* *} ; 770: 002^{* *} ; 770: 003^{* *} ; 770: 004^{* *}\); 770:011; 770:013. One of the following: \(680: 121^{*} ; 770: 031^{*} ; 770: 141^{* * *}\); 770:142**; 920:138****; 940:164; 960:169; 960:170; 960:173.
JAPANESE (8-18 hours) 730:001**; 730:002**; 730:011. One of the following: \(680: 122^{* ;}\) 640:130; 920:134****.
*Credit hours in these General Education courses may be applied toward the completion of the General Education requirement and the completion of this certificate program.
**Students who received credit toward the foreign language competency requirement for UNI graduation from satisfactory performance in high school language courses or students who can pass an equivalency examination do not need to take these courses.
***These courses require additional prerequisites in the foreign language.
****920:053 and 920:054 are required prerequisites for all 100-level economics courses.
SUMMARY:
1. International Business 3 hours


Spanish: 8-20 hours
French: 7-19 hours
German: 8-18 hours
Portuguese: 7-18 hours
Russian: 8-18 hours
Japanese: 8-18 hours
13-26 hours

\section*{College of Business Administration/College of Education}

\section*{Tourism Certificate}

The Tourism Certificate program is jointly offered by the College of Business Administration and the College of Education, School of HPELS. This program is administered by the Leisure, Youth and Human Services Division within the School of HPELS, College of Education. For information on the following program certificate, interested students should contact the Division of Leisure, Youth and Human Services, Tourism Advisor, 203 WRC.

Required:

Tourism: 43T:070 ................................................................ 3 hours
 Leisure Services: 430:172 Tourism: 43T:170; \(43 \mathrm{~T}: 171\)
 One course from the following ........ano...................................... 3 hours

Management/Leadership: 150:153 or 430:146 or 430:168
OR
Program Development: 430:110; 43T:173; \(43 \mathrm{Y}: 154\).

\section*{College of Humanities and Fine Arts}

\section*{Certificate in Leadership Foundations}

The Certificate in Leadership Foundations is an interdisciplinary program that educates students about and for leadership in a democratic society. This certificate provides an overview of diverse leadership theories, concepts, and issues, and assessment of one's leadership styles and abilities. It is open to any student; prior experience in leadership activities is not required. A minor in leadership studies is also available and carries a leadership internship.

Prerequisite for admission: 2.50 GPA or permission of Director, Student Services Center 103.

\section*{Required:}


Take any 2 courses from the list approved for the Leadership Studies minor (see page 97) for a total of 6 hours.

13 hours

\section*{College of Social and Behavioral Sciences}

\section*{Conflict Resolution Certificate}

The Conflict Resolution Certificate curriculum is designed for students from diverse majors whose anticipated careers would likely provide opportunity for understanding and conducting conflict resolution. To encourage breadth, the selections from any given discipline are restricted to two courses.

\section*{Required:}

Social Work/Sociology/Anthropology:

Electives: four of the following courses 12 hours
Social Work: 450:142*; 450:193**.
Communication: 48C:136***; 48C:148***.
Political Science: 940:125.
Geography: 970:116.
Sociology: 980:150****.
15 hours
Choice of courses and subsequent course prerequisites may increase the length of this program.
*450:142 has a prerequisite of \(450: 041\), which may be used to satisfy Category 4C of the General Education Program.
**450:193 has a prerequisite of 450:192.
***48C:136 and 48C: 148 have a prerequisite of \(48 \mathrm{C}: 004\).
****980:150 has a prerequisite of \(980: 058\) which may be used to satisfy Category 4A of the General Education Program.


\section*{Graduate 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.

\section*{Department of Communication Studies}

\section*{Graduate Certificate in Corporate Communication}

This is a 15 -hour certificate designed to provide advanced studies distinct from existing MA programs in the department (i.e., public relations, organizational communication, etc.). This certificate is designed to provide enhanced communication skills, abilities and knowledge necessary for effective functioning in business settings.

\section*{Required:}

Communication Studies: 48C:134; 48C:135; 48C:166 or another course in Communication approved by the advisor; 48P:184

12 hours

Communication: 48C:222; 48C:232.
Public Relations: 48P:282. 15 hours

\section*{Department of Educational Leadership, Counseling, and Postsecondary Education}

\section*{Advanced Studies Certificate in Educational Leadership}

\section*{Emphasis: Principalship}

This is a post-master's program consisting of a minimum of 39-4d semester hours leading to the issuance of an Advanced Studies Certificatl in Educational Leadership. The purpose of this program is to allow the student to broaden and sharpen her/his skills in competency areas. This is solely for the purpose of gaining endorsement in the Principalship.

The program will consist of a minimum of 39-40 semester hours in graduate studies in the area of educational leadership and/or related studies.


\section*{Emphasis: Superintendency}

This is a post-master's program consisting of a minimum of 36 semester hours leading to the issuance of an Advanced Studies Certificate in Educational Leadership. The purpose of this program is to allow the student to broaden and sharpen her/his skills in competency areas. This is solely for the purpose of gaining a superintendent endorsement.

The program will consist of a minimum of 36 semester hours in graduate studies in the area of educational leadership and/or related studies.

Required:
Special Education: 220:340 ................................................. 3 hours
Educational Leadership: 270:310; 270:314; 270:320; 270:325; 270:330; 270:338; 270:340; 270:346; 270:354 .. 28 hours
Educational Leadership Seminar: 270:389 (Superintendency)

2 hours
Educational Leadership Practicum: 270:397 sowenoosoconesoosene. 3 hours
36 hours
Certification for the superintendency does not automatically endorse student for elementary/secondary principalship.

\section*{Program prerequisites:}

Students who apply to this program must be admitted to graduate studies at UNI under the degree status category. Consult the Graduate College and/or the Department of Communication Studies for further information.

\section*{The Craduate Program}

\section*{http://www.grad.uni.edu}

The University of Northern Iowa offers advanced programs leading to graduate degrees in:

Master of Accounting
Master of Arts
Master of Arts in Education
Master of Business Administration
Master of Music
Master of Public Policy
Master of Science
Master of Social Work
Specialist
Specialist in Education
Doctor of Education
Doctor of Industrial Technology
The University of Northern Iowa is a member of the Council of Graduate Schools in the United States and 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, State of Iowa to offer a program of graduate work leading to the Master of Arts in Education; the program began with the summer session of 1952. In 1960 the graduate program was extended with the addition of a sixthyear program leading to the Specialist in Education degree. The addition of the Ed.D. program, approved by the Board of Regents, State of Iowa 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 leadership.

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, the Master of Public Policy in 1991, the Master of Science in 1993, the Master of Social Work in Fall 2000, and the Master of Accounting in Fall 2000 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 - 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 interdisciplinary 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 Science degree is offered in Biology, Chemistry, Computer Science and Environmental Science/Technology and is designed to prepare students for positions in those areas. The Master of Social Work is designed to prepare students for the advanced practice of social work in a variety of public and non-profit settings. The Master of Accounting is designed for Accounting majors, however, other majors within the

College of Business Administration may be admitted to the program.
The Doctor of Industrial Technology, the University's first doctoral program, was authorized by the Board of Regents, State of Iowa 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 graduatelevel courses are offered by all departments of the University.

Those who wish to continue their professional and cultural growth without fulfilling the requirements for a graduate degree may do so if they satisfy the requirements for admission to graduate study.

\section*{The Quad-Cities Graduate Study Center}

The University of Northern lowa 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 her/his major department. Preliminary inquiries may be directed to the Dean of the Graduate College.

\section*{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.

\section*{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. Prospective students may apply for graduate admission under one of two categories: Degree Status or Non-Degree Status. Each category carries specific regulations.

Responsibility for determining eligibility for admission to graduate degree programs rests primarily with the academic departments. The academic departments are responsible for receiving degree status admission applications and for determination of admissibility.

\section*{Requirements for Admission to}

\section*{Degree Status}

An applicant must have a bachelor's degree from an accredited college or university. The Office of the Registrar determines that the applicant has an accredited bachelor's degree or will complete the bachelor's degree before commencing graduate study.

A student who expects to earn a graduate degree at this university must file an official transcript from the college or university granting the baccalaureate degree if other than the University of Northern Iowa. Only transcripts sent directly from the issuing institution to the UNI Office of the Registrar are considered official. Degree Status applicants who have attended other colleges or universities after earning the bachelor's degree must file an official transcript of each record.

The applicant should check with the department offering the major of their choice, to determine whether/which Graduate Record Examination (GRE) tests are required prior to admission. If required, the applicant must request that the scores be sent directly from the testing agency to the Office of the Registrar.

Students applying for admission to a graduate degree program in the College of Business Administration are required to submit their scores from the Graduate Management Admission Test (GMAT). They need not take the Graduate Record Examination. The student must request that the testing agencies forward their test results directly to the Office of the Registrar.

Students from countries where the native language is not English are required to take the TOEFL. Foreign students should contact the International Services Office, University of Northern Iowa, for explanation of requirements. The minimum TOEFL required for admission to graduate status is 500 . Individual departments may require a higher score.

Additional admission requirements (e.g. departmental application, letters of reference, goal statement, etc.) may be established by departments. Students should contact the department for this information.

Students will be admitted to Degree Status on one of two bases:
A. 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 their choice of degree program in their admission application.

The minimum undergraduate grade point average, or prior graduate grade point average, required for admission is \(3.00\left({ }^{*} B^{"}=\right.\) 3.00 ) or its equivalent. Individual academic departments may require a higher grade point average for admission.
B. Provisional Status

At the discretion of the academic department concerned, an applicant (with an undergraduate and prior graduate GPA of less than 3.00) may be admitted as a Provisional Degree Student. A Provisional Degree Student is admitted to a graduate program, subject to certain reservations/requirements. The department must notify the student of its reservations and the requirements that must be satisfied before a student may be removed from provisional status. 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 generally eligible for reclassification to Degree Student Status. The responsibility for such reclassification rests with the academic department concerned. Reclassification review should take place the semester after the student has completed eight (8) semester hours in their graduate program. The department has responsibility for notifying the Dean of the Graduate College about the reclassification decision. No student may receive a UNI graduate degree while on provisional status.

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.

\section*{Requirements for Admission to NonDegree Status}

The admission process for Non-Degree Status applicants begind when the application for admission and all supporting documents have been received in the Office of the Registrar. Requests for Non-Degred Status are reviewed and acted upon within the Office of the Registrar.

An applicant must have a bachelor's degree from an accredited college or university. All students wishing to receive graduate credit must file an official transcript from each college or university from which they have received a degree, unless the degree was obtained from the University of Northern Iowa. Only transcripts sent directly from the issuing institution to the UNI Office of the Registrar are considered official.

Students from other countries where the native language is not English are required to take the TOEFL. Foreign students should contact the International Services Office, University of Northern Iowa, for explanation of requirements. The minimum TOEFL score required for admission is 500 .

Non-Degree Status has been established for the post-baccalaured ate student who:
A. wishes to take courses for self-enlightenment unrelated to any graduate degree program.
B. plans to demonstrate competence in graduate studies in support of consideration for admission to a degree program at a later time.
NOTE: Academic departments are not obliged to count toward their degree programs any credit for course work undertaken in a NonDegree Status. If a department decides to accept such credit, no more than 12 semester hours may be counted toward a degree program.

\section*{Post-Baccalaureate, UnderGraduate 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. Inquiries should be made to the Office of the Registrar. Undergraduate status will be accorded students who seek:
1. a second baccalaureate degree (designation as Senior) or
2. teacher licensure (designation as Senior) - 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, or
3. courses for undergraduate credit (designation as Unclassified)

Students with baccalaureate degrees do not earn graduate credit while remaining in this undergraduate classification. They must be admitted either to graduate Degree or Non- Degree Status before they can receive graduate credit for their course work (courses numbered \(100[\mathrm{~g}]\) or 200 ).

\section*{Application Dates}

Applications for Degree-Status admission and all credentials required for admission should be on file in the Office of the Registrar at least one month before departmental review. Students must contact the academic department regarding application review deadlines.

International students should note the special application deadlines required by the International Services Office.

Applicants for Non-Degree Status will be accepted up to five (5) days before registration.

\section*{Health}

Graduate applicants for admission to UNI are not required to file a report of a physical examination or medical history. However, the University does require documentation of measles (rubeola) immunization by all students. Documentation of additional tests are required for International students (contact International Programs). 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 Clinic with information concerning their situation. (See pages 24-25 for services available through University Health Services.)

\section*{Academic Regulations}

\section*{Academic Discipline}

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 3.00 in that program will be placed on probation. If the student completes eight (8) hours while on probation without qualifying as a degree candidate (GPA of 3.00), the student is reviewed for suspension from graduate degree programs. A student who has completed eighteen (18) semester hours in a program of study with a cumulative GPA less than 3.00 in that program will be suspended. No courses in the student's program of study may be taken during the year of academic suspension.

When a student is suspended, at least one calendar year must elapse before reapplication to a graduate degree program may be made. Applications for Readmission to Graduate Study must be approved by the department and the Graduate College before a student will be removed from academic suspension. Such applications must be submitted to the Dean of the Graduate College.

A student reinstated after suspension who fails to attain a cumulative GPA of 3.00 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 graded 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 graduate course ( \(100 \mathrm{~g}, 200\), and 300 ) 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.

\section*{Nonacademic Discipline}

\section*{Departmental Nonacademic Probation and Dismissal Policy Procedures*}

In addition to the University-wide requirements for academic standing, academic departments may establish additional requirements (e.g. ethical/professional standards), violation of which, might determine an individual graduate student's standing with regard to probation and dismissal from a graduate program.

To this end, departments with such requirements must put these in writing and place them on file in the departmental office and the Graduate College.

Departments must make all reasonable efforts to inform graduate students of the existence of such policies/standards and disseminate them to students upon their admission to graduate study in the program/area.

Subsequent changes in policies/standards must be communicated by the department to each student in the program and to the Dean of the Graduate College. The new regulations will not apply retroactively to the disadvantage of students already in the program.

Departments must provide information to students which outlines: required courses applicable to the various departmental programs of study, examination procedures and other formal evaluations, departmental policies with regard to awarding and renewing assistantships, time limits on programs of study (if less than seven years), registration policies, grade point requirements, requirements for changing from one degree program to another within the department, and other matters as are appropriate. The nature of the departmental advisory system should also be explained to incoming students.

\section*{I. Departmental Nonacademic Probation:}

If a student is failing to meet departmental nonacademic standards and probation or suspension is being considered, the department must:
a. warn the student of this in writing and specify in what way(s) the student is failing to meet the departmental standard(s);
b. advise the student (in writing) of the consequence(s) of failure to address the problem(s) cited, satisfactorily.
c. provide the student with a reasonable amount of time (e.g. a minimum of ten school days) within which to respond to the notification (e.g. the right to review) and indicate to the person(s) to whom a response should be made;
d. provide the student with a reasonable amount of time to meet the standards or remediate prior to being placed on departmental probation and suspension.
If a student is to be placed on departmental probation, the department must:
a. provide, at the time of its imposition, a written explanation of this status, and its time limits;

\section*{Admission to Graduate Study}
b. indicate the impact of departmental probation on the pursuit of future graduate course work in the program of study;
c. give the student a reasonable amount of time within which to respond to the notification of probation (e.g. right to review) and indicate to whom a response should be made;
d. provide an explanation of the departmental reinstatement procedure(s);
e. establish departmental procedures for handling reviews.

The department should also notify the Dean of the Graduate
College and the Registrar in writing and indicate the impact of the student's nonacademic probationary status on the pursuit of future graduate course work in the program of study. The Dean of the Graduate College and the Registrar should be notified when the student has been removed from probation.

\section*{II. Departmental Dismissal:}

A student may be dismissed for her/his failure to meet: the conditions of admission, conditions of departmental probation, preannounced departmental grade point requirements or other standards. If a student is dismissed from a graduate program, the department must:
a. notify the student of this in writing, specify what the student has done to merit departmental dismissal and its time limits;
b. indicate the impact of departmental dismissal on the pursuit of future course work in the program of study;
c. give student a reasonable amount of time (e.g. a minimum of ten school days) to respond to the notification of dismissal (e.g. right to review) and indicate to the person(s) to whom a response should be made;
d. provide an explanation of departmental reinstatement procedures (as appropriate).
The department should notify the Dean of the Graduate College and the Office of the Registrar in writing and indicate the impact of the student's nonacademic dismissal on the pursuit of graduate course work in the program of study. The Dean and the Registrar should be notified when the student's dismissal has been removed.

Departmental policies/procedures for nonacademic probation and dismissal must be approved by the Graduate Dean and offered a fair and expeditious review.
III Graduate College Review of Departmental Dismissal:
Questions involving judgment of performance will not be reviewed beyond the departmental level. If, however, the student feels there has been unfairness or some procedural irregularity concerning probation or dismissal, the student may request a review by the Graduate College. This review may be conducted by the Dean of the Graduate College (or his designee).
*This policy does not preclude enforcement of any other University policies (e.g. policies re: the academic standing of graduate students, academic ethics policies, grievance procedures for graduate students and graduate assistants).

\section*{The Making Up of Incomplete Work}

Work reported as Incomplete (I) in the Fall session for graduate students must be completed by June 1st the next calendar year. Work reported Incomplete in the Spring and Summer sessions must be completed by January 1st the next calendar year. 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 an F (Failure) on the student's record.

Any requests for an exception to the above guidelines for graduate students must be submitted in writing to the Graduate College. Only
under the most unusual circumstances would requests for additional time be approved.

Some courses continue beyond the normal ending date of the semester or session. In such cases the initial grade reported will be an \(R C\) which means Research or Course Continued. Once the extended instructional period is finished the \(R C\) grade will be replaced with the appropriate grade assigned by the instructor. (See page 56.)

\section*{Regulations Affecting Registration}

Each student admitted to Degree Status or Non-Degree Status is assigned an advisor. The advisor will assist the student in the registratiof process involving the selection of courses and other matters such as:
1. Maximum Academic Load. The maximum graduate student load during each semester of the academic year is fifteen (15) hours.

The maximum graduate student load during the eight-wee summer session is nine (9) semester hours - a maximum of six (6) semester hours during one four-week period and three (3) semeste hours during the other four-week period; or three (3), 3-semester| hour courses during an eight-week period. The maximum load dur ing a two-week post-session is two (2) semester hours. Exception to these load restrictions may be granted only by the Dean of the Graduate College.
2. Level of Courses. Graduate students normally take courses in the \(100(\mathrm{~g})\) series and 200 series. A graduate student may take courses in the 100 series (without " 8 ") or below for undergraduate credit, but such courses do not carry graduate credit. However, all course graduate or undergraduate, taken as a graduate student, count in determining the cumulative grade point average, except approved non-graded graduate course work.
3. Credit from other Institutions. Graduate credit from othe accredited institutions may be accepted to a maximum of one-third of the number of hours required by a particular UNI thesis or nonthesis master's degree program. Students pursuing a graduat degree program should discuss their plans to transfer credits with their program advisors as soon as possible. Credits earned from other institutions will not satisfy the minimum 200-level course requirement.

\section*{Waiver of Regulations}

Exceptions to Graduate College regulations may be granted by the Dean of the Graduate College. Requests for exceptions are initiated by the student's advisor and approved by the appropriate department head before submission to the Graduate Dean.

\section*{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 VA Clerk 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. Questions should be referred to the VA Clerk in the Office of the Registrar.

\section*{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 fulltime students who are in residence during the time of the assistantship appointment. The associated work assign ment 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 \(10-\mathrm{month}\) 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 should have a minimum 3.00 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 fulltime ( \(9+\) graduate graded hours to a maximum of 15 hours per semester).

Application forms may be obtained from the department in which the student is applying for an assistantship. Applications should be filed by March 1 with the department.

Recommendations for awarding 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.

\section*{Scholarships}

Tuition scholarships are awarded through the Graduate College upon recommendation of both the department head and college dean. To be eligible, a graduate student must have Degree Status and should have a minimum 3.00 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 fulltime ( \(9+\) 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.

\section*{Financial Aid Office}

Qualified degree-seeking students may secure loans from either Perkins (formerly National Direct Student Loan or NDSL), or William D. Ford Federal Direct Loan. Loans are available to students enrolled at least halftime ( 5 semester hours in the fall or spring semesters or 3 semester hours in the summer).

A limited number of opportunities for part-time employment are available on the campus for students attending University of Northern Iowa at least halftime. On-campus positions pay a minimum of \(\$ 5.65\) per hour.

Graduate students who wish further information about financial assistance may contact the Financial Aid Office, 116 Gilchrist Hall, University of Northern Iowa, Cedar Falls, IA 50614-0024. See pages 1922.

\section*{Master's Degree Programs}

\section*{Common Regulations and Requirements}

\section*{Application for Program Approval}

Academic departments have established procedures for advising and monitoring students. A student applying for program approval must first be admitted unconditionally to Degree Status graduate study. Student must have a cumulative grade point average of at least 3.00 for courses taken as a graduate student.

A departmental representative (e.g. advisor), or committee, conducts a formal interview with the student to inform her/him of program requirements and expectations. This interview should be conducted during the first semester in which a student is enrolled in a degree program. No more than fifteen (15) semester hours of credit completed before this interview is conducted can be applied toward the degree being sought. This includes transfer and correspondence course work as well as credit earned as a senior.

At the departmental interview, the student's program of study will be planned and an Application for Program Approval (GF-1) completed. This form must indicate how all requirements for the master's degree will be met. The thesis or non-thesis option should be designated. For students following the thesis option, thesis committee members should be identified. The GF-1 should be signed by the student, approved by the departmental representative or committee, the department head, the dean of the appropriate college and filed with the Graduate College. The Dean of the Graduate College may: approve the Application For Program Approval form at once (and then notify the student); delay action until additional data is available; or return it to the department with comments. The Dean of the Graduate College is in general charge of each graduate student's program.

Graduate level transfer courses taken prior to degree admission are eligible for application to degree requirements, if official transcripts were filed at the time of admission to graduate study. Transfer courses taken after degree admission will not be processed for inclusion in the program of study until official transcripts are filed with the Registrar's Office. Academic departments are not obliged to count toward their degree programs any credit for course work undertaken without specific advice provided by the department, either through an advisor assigned to the student prior to the formal interview or in the course of the interview itself.

Thesis Committee. The committee 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 her/his research and writing, and eventually accepts or rejects the thesis.

The nature of the thesis is described on page 135.
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 her/his first semester. The delineation of an exact topic is not necessary before completing an Application for Program Approval form.

Preview Meeting. Students must schedule and complete a Preview meeting before submitting the required copies of their thesis to the Graduate College. An approved Application for Program Approval (GF-1), with the thesis committee members listed, must be on file in the Graduate College in order for a student to be scheduled for a Preview session. Academic departments will identify the students who should be scheduled for Preview each semester.

\section*{Graduation Requirements}

\section*{Thesis Plan}
1. The number of hours of graduate credit required varies with the major. A minimum of thirty (30) hours of graduate credit is required for all majors. (See pages 136 to 166) For the Master of Arts (M.A.), the Master of Arts in Education (M.A.E.), and the Master of Music (M.M.), a minimum of twenty-four (24) hours must be in course work other than xxx:299. For the Master of Science (M.S.) degree, a minimum of twenty-one (21) hours must be in course work other than xxx:299. The remainder of the 30 hours will be xax:299 thesis research credit. At least twenty (20) hours must be earned at the University of Northern Iowa. Six (6) semester hours must be earned in a single semester or summer session, after admission to degree status.
2. 200-level Credits: A minimum of nine (9) semester hours of 200 level credit, other than xxx:299 Research, taken at the University of Northern Iowa is required; six to nine (6-9) hours of xxx:299 may be taken. No more than six (6) semester hours of \(x \times x: 299\) can be applied to the minimum 200 -level requirement for a specific major.
3. Completion of the course requirements for a specific major and any additional courses designated by the departmental committee.
4. Meet the recency of credit requirement.
5. Complete a thesis and meet thesis submission deadlines. Students receiving the Master of Music (M.M.) degree will be required to complete a Final Project as required by the department.
6. Core Requirements.

Master of Arts in Education
200:214 Foundations of Instructional Psychology - 3 hrs .
or
260:234 Philosophy of Education - 3 hrs.
250:205 Educational Research - 3 hrs.
Master of Arts
Professional Core A or Professional Core B required only by certain majors
Master of Music No core required.
Master of Science No core required.

\section*{Non-Thesis Plan}
1. The number of hours of graduate credit required varies with the major. A minimum of thirty (30) semester hours of graduate credit is required for all majors. (See pages 136 to 166.) At least twenty (20) hours must be earned at the University of Northern Iowa. Six (6) semester hours must be earned in a single semester or summer session, after admission to degree status.
2. 200-level Credits: A minimum of twelve (12) hours of 200 -level credit, taken at the University of Northern Iowa is required. No more than three (3) semester hours of xac:299 can be applied to a non-thesis program.
3. Completion of course requirements for a specific major and any additional courses designated by the departmental committee.
4. Meet the recency of credit requirement.
5. Complete 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, presented in a format acceptable for publication and permanently filed in the departmental office.
6. Core Requirements:

Master of Accounting
No core required.
Master of Arts in Education
200:214 Foundations of Instructional Psychology - 3 hrs. or
260:234 Philosophy of Education - 3 hrs.
250:205 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 Public Policy
No core required.
Master of Science No core required.
Master of Social Work
No core required.
Professional Core A
(prerequisite: Teacher Licensure or equivalent)
200:214 Foundations of Instructional Psychology - 3 hrs.
or
260:234 Philosophy of Education - 3 hrs .
250:205 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 200:x0x through \(290: 000 x\) series.

\section*{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.

\section*{Required:}

State approved Human Relations course
170:250 Teaching in College - 3 hrs.
170:256 The Two Year College - 3 hrs .
:297 Practicum -2 hrs. (strongly recommended)

\section*{Other Requirements and Criteria}
1. Scholarship. A cumulative grade index of 3.00 ("B" average) must be earned in all courses attempted as a graduate student within the program of study. No more than six (6) semester hours of "C + ", " \(C^{\prime},{ }^{\text {" }} \mathrm{C}-\) " credit earned within the program of study may be applied toward credit for graduation.
2. Recency of Credt. 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 (3) credit hours of graduate nongraded course work may be applied within the program of study. Exceptions are practica, internships, and 299/399 Research hours.
4. Program Approval. The requirements for program approval are described on pages 133-134.
5. Transfer of Credit from other Institutions. Graduate credit from other accredited institutions may be accepted to a maximum of one-third of the number of hours required by a particular UNI thesis or non-thesis master's degree program. Students in any graduate degree program should discuss their plans to transfer credits with their program advisors during the first semester of their degree programs (see page 133, "Application for Program Approval"). Transfer courses will not be used to satisfy the 200-level course requirement.
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 100 g -level correspondence credit may be applied to a graduate degree program. The request must be submitted to the Dean of the Graduate College prior to registering for the course.
7. Workshop Credit. No more than six (6) hours of credit earned in workshop courses, at the University of Northern Iowa or another institution, will be applied toward a graduate degree.
8. Examinations. Master's degree students on either the thesis or nonthesis plan may be 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.
9. Research Credit. Registration for xxx: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, should be filed in the departmental office.

Research carries residence credit and may be pursued either on or off campus, but not in an extension class. There is no prerequisite, although it is strongly recommended that 250:205 Educational Research or a departmental course in research be completed before registering for Research.
10.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. 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 for the master's degree, and provided that prior arrangements have been made with the Dean of the Graduate College, \(s(\) he \()\) 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.
11.Thesis. A thesis is required of all students who choose the thesis option. 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 credit hours of research permitted for thesis work will vary with the program. Most master's theses (M.A., M.A.E.) include a six-hour thesis credit requirement. The M.S. thesis option requires a maximum of nine (9) credit hours of research in the program of study. The 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 (xcx:299, xxx:399), not more than six (6) hours in any semester. The instructor may assign an " \(R C^{"}\) for Research Continued, if \(s(h e)\) 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 her/his thesis) should be postponed until the thesis is near completion. The Registrar may authorize the extension of time for the completion of a Research Continued (RC) in Research up to one additional calendar year with consent of instructor. If at the end of that time the work has not been completed, the RC will bechanged 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 student's committee and the Dean of the Graduate College have approved the thesis. The thesis must be presented for approval to the thesis committee early enough in the semester to meet the Graduate College deadline for final submission (see "13. Filing of Thesis").
12.Preview. During the semester in which the student intends to graduate, the student must make an appointment with the Graduate College for a thesis preview to have the style and format of the thesis reviewed. The student must have an approved program of study (GF-1) on file in the Graduate College with the members of the thesis committee listed before a preview meeting will be scheduled. All problems may not be detected during the preview, however, the major difficulties will be discussed. Often a brief consultation will uncover format problems that are easily remedied at this stage. No thesis will be accepted by the Graduate College for final approval without the completion of this meeting.
13.Filing of Thesis. The student must present two copies of the thesis in final form, either originals or photocopies, to the Graduate College no later than six weeks before graduation. Failure to meet this deadine will result in a delay in 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.

Final copies submitted to the Graduate College must be on white, acid free, 24 -pound, \(25 \%\) or \(100 \%\) cotton paper. The student
may purchase the approved paper at the print centers in the Rod Library or the Physical Plant. The Rod Library Print Center is equipped to photocopy theses. The final copy must be clean and suitable for microfilming, with uniform darkness and a sharp imprint.

When the thesis is submitted to the the Graduate College, the student will present a receipt of payment for the cost of the thesis binding. This fee is 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. Consult the Thesis and Dissertation Manual for the list of approved style manuals.
14.Filing of Abstract of Thesis. An abstract or summary of the thesis is required of all students following the thesis plan toward the master's degree. The abstract will be approximately 350 words in length and is submitted with the thesis. Three copies of the abstract must be filed in the Office of the Graduate College.
15.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 s(he) plans to receive the degree. The application form may be secured in the Office of the Registrar or the departmental offices.

\section*{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.

Minimum graduate hours required
Minimum hours of credit at UNI •
Maximum usable hours combined in transfer and correspondence credit
Maximum usable hours of correspondence credit (requires Graduate College preapproval)
Maximum usable hours of workshop credit
Minimum hours required in courses numbered
200 and above
*Includes six (6) to nine (9) hours for research (xoxe299), depending on the Masters program.
**Includes at least one research paper. Total hours depends on major chosen.
\(\wedge\) Must include six (6) or more hours in one semester or summer session. \(\wedge \wedge\) Up to one-third of the hours on the graduate program of study.
\#Includes no more than six (6) hours research credit (xaxe299) for thesis. \#\#In some departments they may include no more than three (3) hours of (xuce299) Research.

\section*{Licensure and Endorsements}

Licensure. For approval in some graduate programs, a student must have earned or be eligible for teacher licensure or its equivalent endorsed in an area appropriate to the graduate major. For information on licensure, consult the Office of 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 Career Center or the Office of the Registrar.

\section*{Second Master's Degree}

A student may pursue a second master's degree at the University of Northern lowa upon completion of the first degree or may pursue two separate master's degrees concurrently by meeting all requirements for the second degree. Only eight (8) semester hours of work from the first degree may be used for the second degree. All University graduation requirements including completion of 200 -level course work, separate master's project/thesis, comprehensives, and all other specific requirements shall be met for the second degree in addition to the first degree.

\section*{Interdisciplinary Master's Degree}

A student may pursue a master's degree with two majors or two emphasis areas by meeting all the requirements for the second majorth eight (8) semester hours of work from the first major may be used for the second. The requirements for work at the University of Northerm lowa, 200-level 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 Students completing one thesis for two majors must earn a minimum of six (6) semester hours of credit in xxx:299. These students have the option of applying an additional two (2) hours of graduate credit. This would constitute the eight (8) semester hours of course work that may be common to both majors.

\section*{Master of Accounting}

\section*{Degree}

The Master of Accounting program (MAcc) is offered on the nonthesis option. A minimum of thirty (30) semester hours is required, of which a minimum of twenty-one (21) hours must be at the 200level. All 100 g courses to be applied to the program must be taken for graduate credit. A research paper is required as an integral component of Accounting Research (120:214 or 120:243).

Students desiring entry into this degree program must have: a minimum Graduate Management Admission Test (GMAT) score of 500, a grade point average (GPA) of 3.00 or better on all upper division (junior/senior) accounting courses, and satisfactorily completed 120:129, 120:130, and 150:113. In addition, a minimum admission score of 1150 (computed by multiplying the undergraduate GPA by 200 and adding the GMAT score) is required. Students may be admitted on a probationary basis if their GMAT score and/or their average grades on upper division accounting courses fall below 500 and/or 3.00 , respectively.

Students from countries where the native language is not English are required to take the GMAT, the Test of English as a Foreign Language (TOEFL) and the Test of Spoken English (TSE). Applicants must earn a minimum score of 575 on the TOEFL (or 230 on the computerized TOEFL) and a score of 50 on the TSE to be considered/eligible for admission.

UNI undergraduate Accounting students interested in the integrated program may apply for admission to the program during the second semester of their junior year and are completing Intermediate II (120:130). An Application for Admission to Graduate Study must be completed and the student's interest in the integrated MAcc degree must be indicated on the application itself. If accepted into the integrated MAcc program, the student will received both the BA and MAcc degrees upon completion of the program.

Once admitted into the integrated program, UNI undergraduate Accounting students (who are classified as seniors) and in the final semester of their senior year, may register for graduate credit as a senior, with the approval of the department head (see guidelines on page 129). The student must present a signed Student Request Form (with the appropriate signatures), when registering for graduate credit as a senior. The combined total number of hours, both undergraduate and graduate, may not exceed fifteen (15) hours in a semester, or eight (8) hours in a summer session. Graduate work completed on the early admission basis will be counted as graduate credit only if the student actually earns the bachelor's degree within two years from the time the student took the course and will not be counted toward the undergraduate degree.

Required:
Accounting: 120:229 \(\qquad\) 3 hours
Accounting Research: 120:214 or 120:243 ....o.o.........osocoe.o..... 3 hours
Accounting electives from the following: 9 hours
Must have 6 hours of 200-level.
120:135; 120:139; 120:141; 120:236; 120:240; 120:242;
120:263; 120:289; 120:214 or 120:243 (if not already taken)
Communication component from the following: \(\qquad\) 3 hours
Management: 150:114; 150:280
Communication: 48C:134; 48C:137; 48C:141; 48C:151;
\(48 \mathrm{C}: 153\) or other non-accounting courses approved by
Department of Accounting
Information Technology component from the following .......... 3 hours
Accounting: 120:236 (must still have 15 hours outside of accounting)
Management: 150:249
International Business component from the following \(\qquad\) 3 hours Finance: 160:158
Economics: 920:136; 920:175
This requirement is met if the student holds an International Business Certificate. If the student has a minor in a foreign language, the program coordinator will determine if this requirement has been met. If this component is waived, an additional 3 hours of electives will be required.
Electives: 6 hours
Economics: 920:135;
Any 200-level, non-accounting College of Business course; Any non-accounting component course listed above;
For those interested in the government/non profit sector:
Economics: 920:117; 920:125; 920:148
Political Science: 940:153;940:172;940:173;940:174
History: 960:225
Students will be required to satisfy an Experiential Component with a pre-approved experience. This component can include enrollment and satisfactory completion of \(120: 141\) or \(120: 169\) or \(120: 179\) or 120:243. In addition, students will be required to prepare a written report summarizing their experience. Supervising faculty will determine whether the experience goals have been satisfied.

\section*{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.

\section*{Art}

Audiology
Biology
Chemistry
Communication Studies
Communications and Training
Technology
Computer Science Education
Educational Technology
English
French
Geography
German
Health Education
History
Leisure Services-
Youth/Human Services
Administration
Mathematics
Mathematics for the Middle
Grades (4-8)
Mental Health Counseling

Music
Physical Education
Physics Education
Political Science
Psychology
School Library Media Studies
Science Education
Science Education for Elementary Schools (K-6)
Sociology
Spanish
Speech-Language Pathology
Teaching English to Speakers of
Other Languages (TESOL)
Technology
TESOL/Modern Languages
Theatre
Two Languages:
French/German,
Spanish/French,
German/Spanish
Women's Studies

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.

On each curriculum and for each major, the student who plans to receive the master's degree must meet the graduate requirements described on pages 134-136.


\section*{Master of Arts Degree}

\section*{Major in Art}

This major is available on the thesis option only. Each student, regardless of emphasis, must complete a minimum of \(\mathbf{3 0}\) semester hours of credit including the following common core. A minimum of fifteen (15) semester hours of \(\mathbf{2 0 0}\)-level course work is required for the thesis option.

Required Core:


Beyond this required core, individualized programs of study are carefully planned and approved in consultation with a graduate advisor.

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.

\section*{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. Students whose emphasis is Art Education must elect the thesis option.

\section*{Studio Emphasis}

In addition to the common core, students may elect specialization in any one of the following studio areas: ceramics, drawing, graphic design, jewelry/metals, 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.
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.

\section*{Major in Audiology}

The professional program in audiology is designed to prepare students for careers in hearing health care. Audiologists graduating fromy 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 comple tion of the appropriate requirements.

This major is available on the thesis or non-thesis option, and a minimum of 38 semester hours is required. All program hours must be taken at the 200 -level.

Audiology majors will be allowed to enter the program in the fall only. GRE examinations are required for all applicants.

Required core:
Audiology core: 51A:258 (6 hrs.); 51A:265; 51A:267;
51A:270; 51A:272; 51A:274; 51A:276;
51A:278; 51A:280; 51A:284 ........................................... 26 hours
Speech-Language Pathology: 51S:255*; 51C:200 ..............2-3 hours
Research: 51C:299 ..................................................................-2-6 hours
Thesis option requires 6 hours
Non-thesis option requires 2 hours
Internship: 51C:257 and/or 280:250 ...............................4-4 46 hours

Seminar in Audiology: 51A:289
(may be repeated for a total of 6 hours)
Other courses as approved by the graduate advisor.
38-55 hours
*51S:255 will be waived if the student has had 51C:155, undergradut ate clinical practice, or an equivalent course.

Students may select a thesis or non-thesis option upon consultation with their graduate advisor. In the Department of Communicative Disorders, all students must have the signature of their advisor for regis tration for classes, including all adds and drops. Students who are sus-1 pended by the Graduate College may not enroll for major courses withi in this department.

In order to meet certification requirements by the Americal Speech-Language-Hearing Association (ASHA), students must comi plete the following:

Six (6) semester hours in speech-language pathology, the specife ic courses to be chosen in consultation with the student's advisor Courses may be taken prior to or concurrently with the majo 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 per ception of speech and hearing; or c) linguistic and psycholinguistiu variables related to normal use of speech, language or hearing.

A minimum of 375 clock hours of supervised clinical experienc in the major which is counted toward the clinical work required fot the Certificate of Clinical Competence in Audiology.

Students seeking endorsement \(\# 235\) by the Iowa Department of Education must enroll in Human Relations (280:170g). In addition students are required to complete ten (10) semester hours of course work in professional education and ten (10) semester hours of practicum in a public school internship.

\section*{Major in Biology}

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 in the subject area of Biology are required for all students who have not completed a biology degree at UNI. All students must take a final comprehensive examination.

This major is available on the non-thesis option only. A minimum of 34 semester hours is required, including a 3-credit-hour research paper. A minimum of fifteen (15) hours of 200-level course work is required. This program is flexible and designed to allow students, working with their advisory committee, to tailor a program to fit student interests and aspirations in biology.

Content areas:
I. 840:240 Advanced Cellular and Molecular Biology
II. 840:250 Advanced Physiology and Development
III. 840:260 Advanced Ecology
IV. 840:270 Advanced Systematics and Evolutionary Biology

Required courses:
200-level courses ................................................................ 9 hours
1 course in at least 3 of the 4 content areas
(prerequisites vary)
Biology: 840:202 ................................................................... 2 hours
Biology: 840:292 .................................................................... 1 hour

Electives 100 g or above ............................................................. 19 hours
34 hours

\section*{Major in Chemistry}

This major is available as a non-thesis plan for students interested in careers in secondary and community college education. The Chemistry Department offers students a friendly environment featuring regular interaction with their faculty mentors. Students interested in the program must submit a complete application, three letters of recommendation, and transcripts of undergraduate and graduate credits to the Chemistry Department.

A minimum of \(\mathbf{3 0}\) semester credit hours is required for this degree. A minimum of fifteen (15) semester hours of \(\mathbf{2 0 0}\)-level course work is required. Specialization is available in the areas of analytical chemistry, biochemistry, chemical education, inorganic chemistry, organic chemistry, and physical chemistry; students generally select a faculty mentor during their first semester of study. Students must submit a research paper and pass a comprehensive examination.


\section*{Major in Communication Studies}

A student may seek a general Communication program or specialize in Communication Education, Mass Communication, Organizational Communication, Performance Studies, or Public Relations. The major is available on the thesis and non-thesis options. A minimum of \(\mathbf{3 0}\) semester hours for the thesis option and 32 hours for the non-thesis option are required. A minimum of fifteen (15) semester hours of \(\mathbf{2 0 0}\)-level course work is required for the thesis option. A minimum of twelve (12) semester hours of 200-level course work is required for the non-thesis option.

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 Studies or the Director of Graduate Studies.

\section*{Thesis Option:}

\section*{Communication Education Emphasis (with lowa Community College Certification)}

\section*{Required:}

Postsecondary Education: Student Affairs: 170:250; 170:256

6 hours
Communication Studies: Core: 48C:201; 48C:224; 48C:286 .....................о.о............ 9 hours Seminar: 48C:282 ........................................................................ 3 hours Research/Thesis: 48C:299 .................................................... 6 hours

30 hours
Non-Credit Certification Requirements:
Non-Credit Teaching Practicum in Communication
Human Relations: 280:170 (if not already taken) 3 hours

\section*{Communication Education Emphasis (without lowa Community College Certification)}

\section*{Required:}

Communication Studies:
Core: 48C:201; 48C:224; 48C:286 ....................................... 9 hours

Research/Thesis: 48C:299 .................................................. 6 hours
Electives .o............................................................................................. hours
30 hours

\section*{General Communication Emphasis}

Required:
Communication Studies:
Core: 48C:201; 48C:224; 48C:286 ...................................... 9 hours
Departmental Seminar: 48C/48E/48P ...o.o.o.osereo............. 3 hours
Research/Thesis: 48C:299 .................................................. 6 hours
Electives ................................................................................................. hours
30 hours

\section*{Mass Communication Emphasis}

Required:
Communication Studies:
Core: 48C:201; 48C:224; 48C:286 _.o.ono............................. 9 hours
Seminar: 48E:222...................................................................... 3 hours
Mass Communication Theory: 48E:224 ........................... 3 hours

Electives ..................................................................................... 9 hours
30 hours

\section*{Master of Arts Degree}
Organizational Communication Emphasis
Required:
Communication Studies:
Core: 48C:201; 48C:224; 48C:286Seminar: 48C:232; 48C:2826 hours
Research/Thesis: 48C:299 ..... 6 hours
Outside Component ..... 3 hours
Departmental electives. ..... 6 hours
30 hours
Performance Studies EmphasisRequired:
Communication Studies:
Core: 48C:201; 48C:224; 48C:286 9 hours
Seminar: 48C:212 ..... 3 hours
Research/Thesis: 48C:299 ..... 6 hours
Cognate Area ..... 6 hours
Departmental electives. ..... 6 hours
30 hours
Public Relations Emphasis
Required:
Communication Studies:
Core: 48C:201; 48C:224; 48C:286 ..... 9 hours
Seminar: 48P:282 ..... 3 hours
Integrated Communications: 48P:184 ..... 3 hours
Research/Thesis: 48P:299 ..... 6 hours
Departmental electives. ..... g hours
30 hours
Of the 30 hours required:
9 hours of 200 -level courses (excluding \(48 x: 299\) )
20 hours of course work in Communication Studies (no more than10 hours outside the department and/or by transfer).
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 comprehensive exams after completion of22 hours of course work.
Successful completion of a thesis (see page 135).
Non-Thesis Option:
Communication Education Emphasis (with lowa Community College Certification)
Required:
Postsecondary Education: Student Affairs: 170:256 ..... 3 hours
Communication Studies:
Core: 48C:201; 48C:224; 48C:286 ..... 9 hours
Language and Communication: 48C:122 ..... 3 hours
Seminar: 48C:282 ..... 3 hours
Electives ..... 14 hours
32 hours
Non-Credit Certification Requirements:
Non-Credit Teaching Practicum in Communication
Human Relations: 280:170 (if not already taken) ..... 3 hours
Communication Education Emphasis (without lowa Community College Certification)
Required:
Communication Studies:
Core: 48C:201; 48C:224; 48C:286 ..... 9 hours
Language and Communication: 48C:122 ..... 3 hours
Seminar: 48C:282 ..... 3 hours
Electives ..... 17 hours

\section*{General Communication Emphasis}

\section*{Required:}

Communication Studies:
Core: 48C:201; 48C:224; 48C:286

9 hours

Departmental Seminar: 48C/48E/48P ............................... 3 hours
Electives ............................................................................... 20 hours
32 hours

\section*{Mass Communication Emphasis}

Required:
Communication Studies: Core: 48C:201; 48C:224; 48C:286 ..................................... 9 hours
Seminar: 48E:222.................................................................. 3 hours
Mass Communication Theory: 48E:224......................... 3 hours
Electives ............................................................................... 17 hours 32 hours

\section*{Organizational Communication Emphasis}

Required:
Communication Studies:
Core: 48C:201; 48C:224; 48C:286

9 hours

Outside Component ........................................................................ 6 hours
Departmental electives......................................................... 11 hours
32 hours

\section*{Performance Studies Emphasis}

Required:
Communication Studies:
Core: 48C:201; 48C:224; 48C:286 ......................................... 9 hours
Seminar: 48C:212 ................................................................ 3 hours

Departmental electives......................................................... 11 hours
32 hours

\section*{Public Relations Emphasis}

Required:
Communication Studies:
Core: 48C:201; 48C:224; 48C:286 .................................... 9 hours
Seminar: 48P:282.............................................................. 3 hours
Integrated Communications: 48P:184 .............................. 3 hours
Departmental electives........o.................................................. 17 hours
32 hours
Of the 32 hours required:
12 hours of 200-level courses (including no more than 3 hours of 48x:299)
20 hours of course work in Communication Studies (no more than 10 hours outside the department and/or by transfer).
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 comprehensive exams after completion of 22 hours of course work.
Successful completion of a research paper (see page 135).

\section*{Program Certificate}

For information on the following Program Certificate, see page 128 or contact the Department of Communication Studies.

\section*{Graduate Certificate in Corporate Communication}


\section*{Major in Communications and Training Technology}

This major is offered by the Department of Curriculum and Instruction as a program in communications and training technology for persons planning to work in non-school settings.

This major is available on the thesis and non-thesis options, and is designed for a minimum of 38 semester hours. A minimum of fifteen (15) semester hours of \(\mathbf{2 0 0}\)-level course work is required for the thesis option. A minimum of twelve (12) semester hours of \(\mathbf{2 0 0}\)-level course work is required for the non-thesis option.

All students completing the thesis option are required to pass an oral examination prepared and administered by the thesis committee. The examination will be comprehensive in nature and will normally accompany the thesis defense. A student completing the thesis option must include six (6) hours of \(240: 299\) in the program of study.

All students completing the non-thesis option are required to complete the Departmental Graduate Research Requirement and to pass a written comprehensive examination prepared and administered by the Department at the end of the student's program of study.

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. Teacher licensure is not required. The student's baccalaureate degree may be in any field.

\section*{Required:}

Educational Technology: 240:139; 240:230; 240:235; 240:240; 240:289 \(\qquad\) .14 hours
Research: 240:299 2-6 hours

\section*{Electives:}

A minimum of 12 hours of electives are required from the
following courses:
Educational Technology. 240:138; 240:147; 240:150;
240:153; 240:170; 240:205; 240:210; 240:253; 240:260;
240:285; 240:286; 240:297 .12 hours
 38 hours

\section*{Major in Computer Science Education}

This program is designed for students who are primarily interested in educationally-related professional careers in computer science. Areas of specialization include teaching and curriculum, artificial intelligence and expert systems, software design and methodology, information storage and retrieval, and programming systems. This program has two emphases. One is for those wishing to apply educational expertise directly to computer science, i.e., teaching computer science at the secondary level or in 2- or 4 -year colleges. The other more technical emphasis is for those desiring a strong background in advanced computer science that includes applying computer science broadly to education and related applications.

This major is available on the thesis and non-thesis options, and a minimum of 33 semester hours is required. A student completing the thesis option must include six (6) hours of 810:299 Research in the program of study. GRE examinations are required for all applicants. A minimum of fifteen (15) semester hours of \(\mathbf{2 0 0}\)-level course work is required for the thesis option. A minimum of twelve (12) semester hours of 200-level course work is required for the nonthesis option.

The teaching emphasis is designed to apply knowledge from education to the teaching of computer science. These students are expected to have a reasonable level of background in both computer science and education upon entry. Some preparatory work may be required of students with little or no background in either education or computer science. The program of study includes (about equally) computer science, education, and the teaching of computer science.

The technical emphasis is designed to apply computer science knowledge and ability to the development of sophisticated applications applicable to education, such as intelligent tutoring systems, multimedia applications, human-machine interaction, applications of virtual reality and graphics, hyper-text, automated library information access, and advanced interactive training systems. Bachelor's-level experience in computer science is suggested for program admission. For these majors, program study includes significant computer science course work and some computer science education course work.

\section*{Required:}

Computer Science: 810:251; 810:253 or 810:255 ...asasome...oser 6 hours

\section*{Additional courses in Computer Science \\ .12 hours}

Electives from the following ( 6 hours 810:299 research required for the thesis option). .15 hours
Courses in Computer Science (810:1 rxg or 810:2xx); 170:250; 200:214; 240:205; 240:240; 250:205; or other computer or instruction-related courses appropriate to student goals.

\section*{Major in Educational Technology}

This major is designed to prepare educators for a variety of professional positions in educational settings, including: school building level, school district level, vocational-technical school, community college, and university.

This major is available on both the thesis and non-thesis options, and is designed for a minimum of 38 semester hours. A minimum of fifteen (15) semester hours of \(\mathbf{2 0 0}\)-level course work is required for the thesis option. A minimum of twelve (12) semester hours of \(\mathbf{2 0 0}\)-level course work is required for the non-thesis option.

All students completing the thesis option are required to pass an oral examination prepared and administered by the thesis committee. The examination will be comprehensive in nature and will normally accompany the thesis defense. A student completing the thesis option must include six (6) hours of 240:299 in the program of study.

All students completing the non-thesis option are required to complete the Departmental Graduate Research Requirement and to pass a written comprehensive examination prepared and administered by the Department at the end of the student's program of study.
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Required:
Educational Technology: 240:131; 240:139; 240:240;
240:289

```
\(\qquad\)
``` 11 hours
Research: 240:299 2 or 6 hours
Thesis option (6 hours) Non-thesis option (2 hours)
Electives
Computer Technology ( 6 hrs. minimum): 240:140; 240:170; 240:205; 240:253; 270:289; 810:251.
Technology Applications ( 6 hrs. minimum): 240:138; 240:147; 240:150; 240:153; 240:232; 240:260.
Related Topics ( 5 hrs . minimum): 200:214\#\#; 240:210; 240:230; 240:235; 240:285; 240:286; 240:297; 250:205\#**.
Other electives as advised
4-10 hours
Thesis option (4 hours)
Non-thesis option (7-10 hours)
38 hours
\# recommended for K - 12 educators
** recommended for students electing thesis option
```


## Major in English

The M.A. Major in English is available on the thesis and non-thesis options, and degree applicants choose one of three emphases (see below). The thesis option requires a minimum of 30-36 semester hours, depending on the emphasis chosen; the non-thesis option requires a minimum of $\mathbf{3 0 - 3 3}$ semester hours, depending on the emphasis chosen. A minimum of fifteen (15) hours of 200-level course work is required for each option.

The three emphases are the following: (1) Literature Emphasis, minimum 30 semester hours - available on both thesis and non-thesis options; (2) Creative Writing Emphasis, minimum 36 semester hours - available on thesis option only; and (3) Teaching English in Secondary Schools-Middle/Junior High and Senior High (TESS), minimum 30 semester hours - available on non-thesis option only.

Graduate students are required to prepare a Program of Study which is subject to the approval of a faculty committee. The departmental committee may require an applicant to complete course work in addition to the minimum hours specified for the selected option and emphasis. Directions for preparing a Program of Study are available from the English Graduate Coordinator.

Students selecting the thesis option are required to take the Comprehensive Examination. Students selecting the non-thesis optio are required to take the Comprehensive Examination, submit a Graduab Student Portfolio, and complete an approved research paper. See the English Graduate Coordinator for details.

Native speakers of English must demonstrate proficiency in anothel language by earning at least a ${ }^{\text {a }} \mathrm{C}^{n}$ grade in a second-semester, college: level course or by passing a specially designed examination. Course world taken to satisfy this foreign language requirement does not count toward the number of hours required for completion of the degree major.

Students who complete an M.A. with a Major in English may be recommended by UNI for Iowa postsecondary licensure by completing Professional Core B (page 134) - 170:252; 170:250 or 620:292; and 620:297. Iowa teacher licensure also requires a human relations compo nent which, if not already completed, may be satisfied by 280:170.

Literature Emphasis: Available on both the thesis and non-thesis option

## Required:



Planned with the student's advisor and subject to the approval of the departmental committee: must include 12 hours of 200-level courses ( 6 hours of 620:299 required for thesis option; no more than 3 hours of 620:299 may be used for the non-thesis option)

30 hours
Creative Writing Emphasis: Available on the thesis option only
Required:
English Language and Literature: 620:201
3 hours
English Language and Literature: 620:108 and/or 620:109 ....3-6 hours
English Language and Literature: 620:174 and/or 620:175........ 9 hours

Electives (planned with student's advisor and subject to approval
by the departmental committee): Literature courses
from English Language and Literature
(must include 6 hours of 200 -level courses)
9-12 hours
Literature, writing, or culture from a department other than English or a non-literature course from English ......0-3 hours 36 hours
The required thesis shall consist of a collection of short stories, a novel a collection of poems, or a book-length poem. Critical apparati -- such as prologue, introduction, epilogue, notes, bibliography - are not required within the thesis. Both a formal oral defense of the thesis and a public reading of selected portions of the thesis are required.

## Teaching English in the Secondary Schools-Middle/Junior

 High and Senior High (TESS) Emphasis: Available on the nonthesls option onlyTeacher Licensure is a prerequisite for completing the Program Approval process for this emphasis. Also prerequisite is the following undergraduate course work: one course in TESOL/Applied Linguistics; one course in advanced writing; two courses in British literature; one course in American literature; one course in modern or ethnic literature; one course in young adult literature; one course in the teaching of writing: and 620:190.

No more than 3 hours of prerequisite courses can be applied to the minimum hours required for this emphasis. Further deficiencies must be made up in addition to the required courses listed below. Students who have not taken all the prerequisite work should consult at once with the English Graduate Coordinator in order to plan appropriate course work.


#### Abstract

Required: Reading: 230:130 ..... 3 hours English Language and Literature: 620:168; 620:201; 620:207 or 620:291 ..... 9 hours English Language and Literature: 200-level literature seminars

$\qquad$ 9 hours TESOL/Applied Linguistics: $630: 190 ; 630: 143$ or630:156 or 630:1926 hours Electives* 6 hours 33 hours *Students who have not completed 280:138 in English are required to take 620:297 for 1 hour. A student who has completed any of the required courses at the undergraduate level may elect other departmental graduate level courses to complete the required minimum total of 33 hours.


## Major in French

The major in French is available on the thesis and non-thesis options; a minimum of $\mathbf{3 2}$ hours is required for either option. On the thesis option, a minimum of fifteen (15) hours of 200 -level course work, including six (6) hours of Research 720:299, is required. On the non-thesis option, a minimum of twelve (12) hours of 200level course work is required, including no more than three (3) hours of 720:299. In the case of the non-thesis option, a research paper must be approved by the student's committee and filed with the Department of Modern Languages before the comprehensive examinations may be taken.

## Required:

Research: 700:195 ..... 2 hours
Literature courses (minimum) ..... 8 hours
Linguistics, grammar, and/ortranslation courses (minimum)8 hours
One course in civilization or culture(unless previously met)3 hours
Electives (6 hours 720:299 research required for thesis option) ..... 11 hours32 hours

The remainder of the program will be determined by the student's needs in consultation with her/his advisor. No more than six (6) semester hours in Translation or six (6) hours in Interpreting may be applied toward this major.

## Teaching Emphasis

This program is offered on the non-thesis option only. A minimum of 34 semester hours is required, of which a minimum of sixteen (16) hours must be at the $\mathbf{2 0 0}$-level; a minimum of twenty (20) hours must represent courses taught in French.

Prerequisites: Student must hold a valid teaching license and have documentation of successful teaching experience. The student who has not completed 700:190, 720:101 and 720:103, or equivalents, before entering the program must add these courses to the requirements stated below.
Required:3 hours
Measurement and Research: 250:205 or equivalent ..... 3 hours
French:Methods, one of which must be a methodologicaltopic in 720:226, 720:286 or 720:289
$\qquad$ 6 hours
Linguistics, one of which must be at the 200 - level, and one language-specific ..... 6 hours
Culture and civilization* ..... 6 hours
Literature* ..... 6 hours
Electives in French ..... 4 hours
*One of these courses must be at the 200 -level. Courses must be taught in French.

Students 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 examinations may be taken.

## Major in Geography

The major in Geography is available on the thesis and non-thesis options. A minimum of $\mathbf{3 0}$ semester hours, including six (6) hours 970:299 for thesis research and writing, is required for the thesis option; a minimum of 36 semester hours, including completion of a research paper, is required for the non-thesis option. A minimum of fifteen (15) hours of $\mathbf{2 0 0}$-level course work is required for both the thesis and non-thesis options.

Students interested in enrolling in the program should contact the graduate coordinator in the Department of Geography. Applications should include two letters of recommendation, a brief statement about professional interests and career objectives, and transcripts of both undergraduate and graduate credit. GRE scores are not required.

## Required core courses:

Graduate Colloquium: 970:202.............................................. 1 hour
Seminar: 970:280......................................................................... 3 hours

Nature and Scope of Geography: 970:293 ...........o................. 2 hours

Electives (6 hours 970:299 research required for the thesis option)

21-27 hours
30-36 hours
Each student's program (beyond the required core courses) will be determined by individual needs in consultation with her/his graduate advisor and the graduate coordinator. A student may, with departmental approval, take up to 6 credit hours (thesis plan) or 12 credit hours (non-thesis plan) of courses in cognate disciplines. For the thesis option, an oral thesis defense is required. For the non-thesis option, a final presentation of the research paper is required.


## Major in German

The major in German is available on the thesis and non-thesis options; a minimum of 32 semester hours is required for either option. On the thesis option a minimum of fifteen (15) hours of 200-level course work, including six (6) hours of 740:299, is required. On the non-thesis option, a minimum of twelve (12) hours of $\mathbf{2 0 0}$-level course work is required, of which no more than three (3) hours of 740:299 may be included. In the case of the non-thesis option, a research paper must be approved by the student's committee and filed with the Department of Modern Languages before the comprehensive examinations may be taken.

Required:

|  |  |
| :---: | :---: |
|  |  |
| Linguistics, grammar and/or translation courses .................. 8 hours |  |
| One course in civilization or culture |  |
| ves ( 6 hours 740:299 research required for e thesis option) | rs |
|  | 32 hours |

The remainder of the program will be determined by the student's needs in consultation with her/his advisor. No more than six (6) hours in Translation or six (6) hours in Interpreting may be applied toward this major.

## Teaching Emphasis

This program is offered on the non-thesis option only. A minjmum of 34 semester hours is required, of which a minimum of sixteen (16) hours must be at the $\mathbf{2 0 0}$-level; a minimum of twenty (20) hours must represent courses taught in German.

Prerequisites: Student must hold a valid teaching license and have documentation of successful teaching experience. The student who has not completed 700:190, 740:101 and 740:103, or equivalents, before entering the program must add these courses to the requirements stated below.

Required:

Measurement and Research: 250:205 or equivalent............... 3 hours
German:
Methods, one of which must be a methodological
topic in 740:226, 740:286 or 740:289 ...............one....... 6 hours
TESOL/Applied Linguistics, one of which must be at the 200-level, and one language-specific ...0.0.nomesen. 6 hours



34 hours
*One of these courses must be at the 200 -level. Courses must be taught in German.

Students 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 examinations may be taken.

## Major in Health Education

This major is available on the thesis and non-thesis options. A minimum of $\mathbf{3 0 - 3 3}$ semester hours, depending on emphasis chosen, is required for the thesis option. A minimum of $\mathbf{3 0}$ semester hours is required for the non-thesis option. Additional hours may be
required, if, upon entering the graduate program, the student need background courses. The thesis option requires six (6) hours of thesis research (410:299). The non-thesis option requires a research paper for two (2) hours credit (410:299). A minimum of twelve (12) hours, exclusive of $\mathrm{xxx}: 299$ credit, must be at the $\mathbf{2 0 0}$-level.

A final comprehensive examination will be required of all students.
Three emphases are offered on this major.

## I. Health Promotion/Fitness Management Emphasis

Required:

Measurement and Research: 250:180 or equivalent........ 3 hours
Measurement and Research: 250:205 or
Physical Education: 440:290 3 hours

Health Promotion and Education: 410:255;

410:271; 410:290; 410:293

12 hours

Electives as approved by the Graduate Committee
( 6 hours 410:299 required for the thesis option;
2 hours 410:299 required for the non-thesis option) ...... $3-6$ hours
30-33 hours
II. Community Health Education Emphasis

Required:
Health Promotion and Education: 410:255; 410:290; 410:293

9 hours
Measurement and Research: 250:205 or
Physical Education: 440:290
3 hours
Electives as approved by the Graduate Committee
( 6 hours 410:299 required for the thesis option;
2 hours 410:299 required for the non-thesis option) ........ 18 hours
30 hours

## III. School Health Education Emphasis

Required:
Health Promotion and Education: 410:255; $410: 290$...... 6 hours
Measurement and Research: 250:205 or
Physical Education: 440:290
3 hours
Electives as approved by the Graduate Committee
(6 hours 410:299 required for the thesis option;
2 hours 410:299 required for the non-thesis option) ......... 21 hours 30 hours
The additional course requirements for this emphasis will be governed largely by Teacher Licensure requirements.


## Major in History

The Graduate Record Examination (General Test) is required for admission to the program. As a general rule, students should have a GPA of 3.20 or better for admission to the program. This major is available on the thesis option only and requires a minimum of $\mathbf{3 0}$ semester hours. A minimum of fifteen (15) hours 200-level course work, including six (6) hours of 96A:299 and 96B:299, is required. Prospective majors must consult with the department head about further requirements prior to beginning their programs.

Required:
History: 960:280; 960:290; 960:289 United States Historiography (for students choosing American History as M.A. Comprehensive area) or a 200-level Thematic Seminar in European or Non-Western History (for students choosing either of these fields as M.A. Comprehensive area). 9 hours
Research: 96A:299; 96B:299 ...o.o.o............................................... 6 hours Electives (may take one course, up to 3 hrs., outside the field of history) 15 hours 30 hours
All fulltime graduate students enrolled in the program will take a final comprehensive examination, both written and oral, within two years of their admission to the program. Parttime students will take the exam after completing 21 hours of graduate credit.

All graduate students in the History M.A. program must demonstrate reading competency in at least one foreign language before completing their program. Departmental faculty who are proficient in the language will determine if the student possesses reading competency.

## Major in Leisure Services-Youth/ Human Services Administration

This major is designed to foster preparation for professional leadership roles in the administration of leisure service agencies and communi-ty-based nonprofit and public youth and human service organizations. The program offers the student the opportunity to take an active role in determining personal learning objectives and developing individual programs of study. The program supports professional development through the utilization of relevant philosophy, content, and skills in order to provide management and leadership for effective and efficient delivery of leisure and youth and human services. Students are encouraged to focus on study that has direct relevance to professional practice.

There are two curricular options available to this major: Leisure Services Program Management and Youth and Human Service Administration. For each option, a minimum of 32 semester hours is required. Up to an additional thirteen (13) hours of undergraduate work may be required for students who do not have undergraduate preparation in the area. All undergraduate prerequisites must be fulfilled prior to enrollment in program-specific graduate course work.

This major is available on the thesis and non-thesis options. The thesis option requires a minimum of fifteen (15) hours of 200level course work, including six (6) hours of 430:299 Research. The non-thesis option requires a minimum of twelve (12) hours of 200-level course work, including two (2) hours of 430:299 Research. Successful completion of a final comprehensive examination is required for both thesis and non-thesis options.

## 1. Leisure Service Program Management Emphasis

Students interested in the administration of recreation and leisure services in public, quasi-public, and private agencies and organizations are encouraged to pursue the M.A. in the Leisure Service Program Management Emphasis.

```
Required:
    Research Methodology (select one of the following) ..... 3 hours
        Health, Physical Education, and Leisure Services,
                Interdepartmental: 440:290
        Sociology: 980:165; 980:178; 980:201
    Statistical Analysis (select one of the following) .ooomocooom3 hours
        Measurement and Research: 250:180 (or equivalent)
        Sociology: 980:160
    Leisure Services: 430:201; 430:202; 430:250;
        430:260; 430:270
        . }15\mathrm{ hours
```



```
        Thesis option (6 hrs.)
        Non-thesis option (2 hrs.)
    Electives approved by the department.
        5-9 hours
                                32 hours
```

2. Youth and Human Service Administration Emphasis

Students interested in the administration of youth and human services in non-profit and public agencies and organizations are encouraged to pursue the M.A. in the Youth and Human Service Administration Emphasis.

```
Required:
    Research Methodology (select one of the following) ....o.. 3 hours
        Health, Physical Education, and Leisure Services,
        Interdepartmental: 440:290
        Sociology: 980:165; 980:178; 980:201
    Statistical Analysis (select one of the following) .onomonomone 3 hours
        Measurement and Research: 250:180 (or equivalent)
        Sociology: 980:160
    Leisure Services: 430:201; 430:250; 43Y:255 ..onoomoocononoomem 9 hours
```



```
        Thesis option (6 hrs.)
        Non-thesis option (2 hrs.)
    Electives approved by the department
        t ..noooonoomonoonoon..11-15 hours
        Courses recommended from one of the following
        focus areas or other courses as approved by
        the Graduate Advisor:
        Youth Development focus:
            Educational Psychology. 200:116
            Leisure Services: 430:260; 430:291 (2-6 hrs.)
            Youth and Human Service Administration:
            43Y:240; 43Y:244
        Human Services Administration focus:
            Youth and Human Services Administration:
            43Y:251; 43Y:253; 43Y:254; 43Y:256
```

                        32 hours
    
## Major in Mathematics

This major is available on the thesis and non-thesis options. A minimum of 36 hours is required for the thesis option; a minimum of 32-35 hours, depending on the emphasis taken, is required for the non-thesis option. A minimum of fifteen (15) hours of $\mathbf{2 0 0}$-ievel course work is required on the thesis option. A minimum of tweive (12) hours of $\mathbf{2 0 0}$-level course work is required on the non-thesis option.

Students whose undergraduate program does not show completion of $800: 141$ and $800: 162$ or their equivalents will be expected to take these courses as part of their M.A. program. At most one of these courses taken to fulfill this requirement can be applied to the elective courses listed below.

Courses taken to satisfy B.A. requirements may not be repeated to count toward the Graduate program.

## Non-Teaching Emphasis

Required:
Mathematics: $800: 155$ or $800: 189 ; 800: 201 ; 800: 203$; 800:240
.12 hours
At least two of the following: $800: 202 ; 800: 204 ; 800: 245$; 800:266, . 6 hours
 Thesis option ( 6 hours)
Non-thesis option (2 hours)

Mathematics: Any of the courses listed above that were not used for the requirements there, or from among the following: $800: 141,800: 149,800: 150$, 800:152, 800:154, 800:157, 800:158, 800:161, 800:162, 800:167, 800:168, 800:169, 800:174, $800: 175,800: 176,800: 178,800: 180$ or $800: 185$, 800:181, 800:182, 800:184, 800:187, 800:193, $800: 196,800: 210,800: 246,800: 263,800: 265,800 ; 273$. 32-36 hours

## Secondary Emphasis



## Major in Mathematics for the Middle Grades (4-8)

This major is intended for teachers interested in mathematics for the middle grades (4-8) and for mathematics specialists and supervisore Candidates are expected to hold appropriate licensure or to provide for it in the program. Normally, candidates will have at least 2 years teaching experience.

This major is available on the non-thesis option only, a minimum of 32 hours is required. A minimum of fifteen (15) hours of 200level course work is required.

> Required:
> Mathematics: $800: 191 ; 800: 211 ; 800: 213 ; 800: 214 ;$ 800:215; 800:220; 800:221; 800:222; 800:236; 800:237; 800:238; 800:289 Seminar in Implementing Change in Teaching Mathematics I; 800:289 Seminar in Implementing Change in Teaching Mathematics II; 800:289
> .29 hours
> Electives as approved by the department.o.oococo.......................... 3 hours
> 32 hours

## Major in Mental Health Counseling

This program is designed for those who intend to work in nonschool settings such as community and mental health centers, counseling centers, and employee assistance programs. Specific areas of interest and the setting in which the person plans to work will determine the appropriate electives in a specialty (emphasis) area. Students complet 1 ing the program must pass a written comprehensive examination, successfully complete a research paper, and fulfill program-specific exit requirements.

This major is available on the thesis and non-thesis options. A minimum of 68 semester hours is required for the thesis option which includes six (6) hours of $290: 299$, and a minimum of 62 semester hours for the non-thesis option. A minimum of fifty-two (52) hours of $\mathbf{2 0 0}$-levei course work is required.

Program requirements and detailed information on the major, including admission policies and procedures, should be obtained from the Department of Educational Leadership, Counseling, and Postsecondary Education.

Required:

Measurement and Research: 250:205 ..oco........................o...... 3 hours
Counseling: 290:103; 290:105; 290:205; 290:220; 290:224; 290:225 290:226; 290:227; 290:228; 290:241; 290:250; 290:256 .35 hours
Psychology: 400:142 ..... 3 hours
Required Practicum and Internship Counseling: 290:290; 290:291 (6 hrs.) ..... 9 hours
Electives: a minimum of 9 hours, in a specialty (emphasis)area, selected in consultation with advisor
$\qquad$ 2 hours 62 hours
Thesis Option:
 68 hours

## 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, must 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 161-163.)

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, music history, expository writing skills, 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 courses to make up any deficiency; such courses will not count toward degree requirements.

Successful completion of a comprehensive examination is required of all students. This examination normally will take place after the candidate has completed the course work required for the degree. The grade B- or above is required for all courses in the Graduate Music Core. Under extentuating circumstances, exceptions to this policy must be approved by the instructor of record, the Graduate Coordinator and the Director of the School of Music. For discussion of credit for applied music under the M.A. degree, see page 212.

## The Program

This major is available on the thesis and non-thesis options, and requires a minimum of 30 semester hours. Students selecting the non-thesis option will write a research paper. A minimum of fifteen (15) hours of $\mathbf{2 0 0}$-level course work is required for the thesis option, including six (6) hours of $5 x x: 299$ Research. A minimum of twelve (12) hours of $\mathbf{2 0 0}$-level course work is required for the non-thesis option.
Required:
Graduate Music Core:
Music History and Musicology: 590:221 ..... 2 hours
Music Theory: 580:210; 580:211 ..... 6 hours
Music Literature: One course from the following - 590:110; 590:111; 590:112; 590:114; 590:115 ..... 3 hours
Specialization: Applied Music
(540:1.xg). ..... 4 hours
Electives: Music (all areas except applied music) ..... 8 hours
Other electives as approved by the department ..... 7 hours
(6 hours of 5xx:299 Research for thesis option)

## Major in Physical Education

This major is available on the thesis and non-thesis options. A minimum of $\mathbf{3 0}$ semester hours is required for both options. Additional hours may be required if, upon entering the graduate program, the student needs prerequisites. Total hours for the thesis option includes six (6) hours of Research 420:299. Total hours for the non-thesis option includes two (2) hours of $420: 299$ for a research paper. A thesis/research paper defense is required of all students, as well as a final comprehensive examination.

This major offers two emphases:

1. Teaching/Coaching Emphasis: This emphasis is designed for those students who plan to teach and/or coach in the school setting, and is available on the thesis and non-thesis options. A minimum of fifteen (15) hours must be at the 200 -level for both the thesis and non-thesis options.

If the undergraduate degree in Physical Education does not include a theory class in either Elementary or Secondary Methods in Physical Education, the student will be required to make up the deficiency with one three (3) credit hour undergraduate Methods course. This would extend the Teaching/Coaching emphasis to a 33-hour minimum.

Additionally, if the undergraduate degree was not in Physical Education or the student does not have at least twelve (12) credit hours of undergraduate theory classes (exclusive of activity classes and Advanced Skill and Coaching classes) on the transcript, the student must take twelve (12) credit hours of either undergraduate or graduate physical education course work on the graduate degree to make up the deficiency. Three (3) credit hours of the additional 12 hours must be an undergraduate Elementary or Secondary Methods in Physical Education course. This would extend the Teaching/ Coaching emphasis to a 42-hour minimum.

Required:
Physical Education: 420:230; 420:273; 420:297 ..............9 hours
Physical Education: 420:274 or

Physical Education: 440:290 or

Research: 420:299..ono.............oono..................o.......... 2 or 6 hours
Thesis option (6 hours)
Non-thesis option (2 hours)
Electives approved by the advisor .....................................9-13 hours
Thesis option (9 hours)
Non-thesis option (13 hours)

## 30 hours

II. Scientific Bases of Physical Education: This emphasis is designed for those who wish to concentrate their study in one of the subdisciplines of physical education, and is available on the thesis option only. A minimum of twenty-one (21) hours, exclusive of $420: 299$ credit, must be at the $\mathbf{2 0 0}$-level.

Required:
Measurement and Research: 250:180 or equivalent....... 3 hours
Physical Education: 420:200; 440:290............................ 5 hours
Research: 420:299 ............................................................. 6 hours
Focus area: select one of the following ......................... 16 hours
30 hours
Exercise Science Focus:
Physical Education: 420:253; 420:260; 420:271 aoomo.o.o... 8 hours
Physical Education: 420:285 or 420:293; 420:289 .......... 3 hours
Electives approved by the advisor..................................... 5 hours
16 hours

## Psychomotor Behavior Focus:

Physical Education: 420:222; 420:251; 420:255 .............. 9 hours
Physical Education: 420:285 or 420:293; 420:289............ 3 hours
Electives approved by the advisor................................... 4 hours
16 hours

## Major in Physics Education

This major is available on the thesis and non-thesis options. A minimum of $\mathbf{3 0}$ semester hours is required for either option. Two emphases are available:

## Physics Education - Secondary:

This program is for high school teachers and requires Professional Core A or a special core arranged by the student and her/his graduate committee. The total number of hours required beyond the minimum of $\mathbf{3 0}$ semester hours will depend upon the student's undergraduate preparation. Both thesis and non-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:

This program requires Professional Core B or a special core arranged by the student and her/his 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 $\mathbf{3 0}$ graduate hours including thesis.

## Required:

Science: 820:200
2 hours
Core A:
Educational Psychology: 200:214 or

Measurement and Research: 250:205 ................................ 3 hours
Electives ( 6 hours $880: 299$ required for thesis option) .............. 22 hours
30 hours
The following physics courses may not be used for credit in this major: 880:120, 880:157, and 880:158.

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. A minimum of $\mathbf{3 0}$ semester hours, including six (6) hours of $940: 299$, is required for the thesis plan. A minimum of 33 semester hours is required for the non-thesis plan.

Required:
Political Science: 940:275; 940:292 6 hours
Electives (6 hours 940:299 research required
for thesis option)
24-27 hours 30-33 hours
A student may, with departmental approval, take as many 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 Psychology

This major is available on the thesis option only and requires a minimum of 38 semester hours. A minimum of fifteen (15) semester hours of $\mathbf{2 0 0}$-level course work is required for the thesis option. GRE examinations are required for all applicant Individual programs of study will be jointly developed by each studen? in consultation with the graduate coordinator.

The M.A. program in psychology consists of three emphases: 1) general-experimental, for students wishing to pursue doctoral study in academic, non-applied areas of psychology; 2) applied psychological services, for those who wish to pursue doctoral-level study in clinical or counseling psychology or to become masters' level providers of psycho logical services operating in clinical settings under appropriate supervi sion; and 3) an industrial-organizational emphasis, for students inter ested in pursuing either doctoral-level studies in industrial-organizal tional psychology or a career in human resources. The program mainy tains a strong empirical, research-based orientation and seeks to: a) provide students with opportunities to develop skills in research methodology; b) gain advanced knowledge of major areas of scientific psychology; and c) for students in the applied emphasis, obtain basic competence in skills relevant to this area. All students are required to complete a thesis for successful completion of this program. The program is set up so it should be completed in two full academic'years and two summers. Students are strongly encouraged to finish within this time frame.

In addition to meeting general University admission requirements applicants are also required to submit the following for considerations 1) a departmental application form; 2) three letters of recommendation preferably from undergraduate psychology instructors; and 3) Graduate Record Examination (GRE) scores on the general aptitude tests (advance psychology test scores required only for those applicants who were not undergraduate psychology majors). All materials should be received by the departmental graduate coordinator no later than March 1 to ensure consideration for financial aid for the following academic year or April 30, for consideration for admission to the program.
Required for all students:
Psychology: 400:239 ..... 3 hours
Readings: 400:285 ..... 2 hours
Thesis Research: 400:299 ..... 6 hoursGraduate-level courses in at least three of the followingareas: Social Psychology, Industrial-OrganizationalPsychology, Developmental Psychology, BiologicalPsychology or Personality. (Required courses forthe Applied Emphasis and Industrial-OrganizationEmphasis are listed below.)
27 hours
38 hours

## Applied Emphasis:

Required:
Psychology: 400:225; 400:249; 400:262; 400:270; 400:272 .... 15 hours


## Industrial-Organizational Emphasis:

Required:
Psychology: 400:157; 400:158; 400:225; 400:249 ................ 12 hours
Practicum: 400:297 ............................................................................ 3 hours

## Major in School Library Media Studies

This major is available on the thesis and non-thesis options. A minimum of $\mathbf{4 0}$ semester hours is required for the thesis option, and a minimum of 36 semester hours is required for the non-thesis option. All students must complete a comprehensive portfolio that meets the requirements of the Division faculty, during their final semester of course work. A minimum of fifteen (15) hours of 200 -level course work is required for the thesis option. A minimum of twelve (12) hours of 200-level course work is required for the non-thesis option.

Students choosing the thesis option are required to write a thesis and pass an oral defense conducted by the thesis committee. Students choosing the non-thesis option are required to complete the Departmental Graduate Research Requirement.

Students completing this major are eligible for the K-12 media specialist endorsement if they hold or are eligible to hold a teaching license.

## Required:

Educational Technology: 240:150
3 hours
School Library Media Studies: 350:115; 350:121; 350:132; 350:134; 350:223; 350:225; 350:230; 350:250; 350:290; 350:295. 29-31 hours

Research: 350:299
1-6 hours Non-thesis option: 1-3 hours Thesis option: 6 hours
Electives: as approved by advisor to a program minimum
total of 36 hours $\qquad$ 36-40 hours
Students who have previous course work which is equivalent to required courses are encouraged to take elective courses in Educational Technology, Gifted Education, Postsecondary Education, or other edu-cation-related programs.

## 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.

This major is available on the thesis and non-thesis options. A minimum of 33 semester hours, including six (6) hours of $820: 299$ for thesis research and writing, is required for the thesis option; a minimum of $\mathbf{3 5}$ semester hours, including completion of a research paper, is required for the non-thesis option. All students must take a final comprehensive examination. A minimum of seventeen (17) hours of $\mathbf{2 0 0}$-level course work is required for the thesis option. A minimum of fourteen (14) hours of 200-level course work is required for the non-thesis option.
Required:
Measurement and Research: 250:205

$\qquad$ ..... 3 hours
Science and Science Education: 820:200; 820:213;820:290; 820:2948 hours
Thesis or Non-Thesis Option. ..... 22-24 hours
33-35 hours
Thesis Option
Research: 820:299 ..... 6 hours
Courses from the College of Natural Sciences ..... 10 hours
Electives from Education or Science and
Science Education ..... 6 hours

## Non-Thesis Option

Research: 820:299 ..... 3 hours
Courses from the College of Natural Sciences ..... 13 hours
Electives from Education or Science and
Science Education ..... 8 hours
24 hours

## Earth Science Education Emphasis

The Earth Science emphasis differs from the Science Education major in that it provides the options of taking either 250:205 or 870:292 and either 820:299 or 870:299. The Earth Science Education emphasis also requires eight (8) hours of graduate credit in earth science and a total of forty (40) hours in earth science in combined undergraduate and graduate program.
Required:
Measurement and Research: 250:205 or
Research Methods in Earth Science: 870:292 ..... 3 hours
Science and Science Education: 820:200; 820:213; 820:290; 820:294 ..... 8 hours
Thesis or Non-Thesis Option. ..... 22-24 hours
33-35 hours

## Thesis Option

Research: 820:299 or 870:299 ..... 6 hours
Courses from the College of Natural Scie
with at least 8 hours of Earth Science ..... 10 hours
Electives from Education or Science and Science Education ..... 6 hours
Non-Thesis Option
Research: 820:299 or 870:299 ..... 3 hours
Courses from the College of Natural Sciences, with at least 8 hours of Earth Science ..... 13 hours
Electives from Education or Science and Science Education 24 hours
Environmental Education Emphasis
Required:
Measurement and Research: 250:205 ..... 3 hours
Science and Science Education: 820:200; 820:213; 820:230 or 820:294; 820:290 ..... 8-9 hours
Thesis or Non-Thesis Option. ..... 21-24 hours ..... 33-35 hours
Thesis Option
Research: 8xx:299 ..... 6 hours
Electives in environmental studies chosen from below 15-16 hours
Non-Thesis Option
Research: 8xx:299 ..... 3 hours
Electives in environmental studies chosen from below* 20-21 hours

## Category A - Basic Sciences

Biology: 840:225; 840:230;
840:255; 840:285; 840:289.
Chemistry: 860:240; 860:285.
Earth Science: 870:113;870:141; 870:160;870:165; 870:171; 870:285.
Physics: 880:134; 880:285.
Iowa Lakeside Laboratory: any 100 g or 200 -level courses
Category B - Resource Management and Education
Science and Science Education: 820:186 or 820:286;
820:230; 820:270; 820:285.
Biology: 840:180; 840:186.
Political Science: 940:155.
Sociology: 980:148
*Normally these hours will be divided equally between Category A Basic Sciences and Category B - Resource Management and Education. 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

The Physics Education emphasis differs from the Science Education major in that it provides the option of taking either 820:299 or 880:299. A combined total of forty (40) hours in Physics is required: thirty-two (32) hours of Physics Teaching from the undergraduate program and eight (8) hours of graduate level Physics.


## 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. A minimum of 36 semester hours is required on the thesis option, and a minimum of 37 semester hours on the non-thesis option. All students must take a final comprehensive examination.

Required:

Science and Science Education: 820:130; 820:200; 820:213; 820:290; 820:294 ... 10 hours
Thesis or Non-Thesis Option...............o...........................23-24 hours 36-37 hours

## Thesis Option


Courses in science content from the disciplines of Biology, Chemistry, Earth Science, and Physics ............ 11 hours
Courses in advanced education from the following .onesonosenes 6 hours Educational Psychology: 200:214.
Elementary, Early Childhood, and Middle Level Education: 210:141; 210:212.
Measurement and Research: 250:180; 250:205.

## Non-Thesis Option


Courses in science content from the disciplines of Biology, Chemistry, Earth Science, and Physics 12 hours
Courses in advanced education from the following: ............ 9 hours Educational Psychology: 200:214.
Elementary, Early Childhood, and Middle Level Education: 210:141; 210:212. Measurement and Research: 250:180; 250:205

## Notes:

1. The science content courses must be such that when combined with prior work the student has a broad background in the various science disciplines (biology, chemistry, earth science, physics). If the student's background is very limited, additional course work at a level lower than 100 g may be required by the advisement committee.
2. The student may substitute in each of the categories "science content" and "science education" up to 3 hours from $8 \times 0: 133 \mathrm{~g}, 8 \times 0: 233$, $8 \times 0: 285,8 \times 0: 286,8 \times 0: 297$, and $820: 270$. Such substitutions must be approved by the Science Education faculty.

## Major in Sociology

The major in Sociology is available on the thesis option only. A minimum of $\mathbf{3 0}$ semester hours, including six (6) hours of 980:299 research, is required. A minimum of fifteen (15) hours of 200-level course work is required.

Required:
Sociology: 980:200; 980:201 6 hours
Two of the following -

Thesis Research: 980:299. .6 hours
Electives 12 hours
3 of these hours must be 200-level sociology; may include 6 hours outside sociology.
$\overline{30}$ hours
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: 980:058, 980:080, 980:108, and 980:170.

## Major in Spanish

This emphasis is available on both the thesis and non-thesis options. A minimum of 32 semester hours is required for either option. A minimum of eighteen (18) hours of $\mathbf{2 0 0}$ - level course work, including six (6) hours of 780:299, is required for the thesis option. A minimum of fifteen (15) hours of $\mathbf{2 0 0}$-level course work is required for the non-thesis option. In the case of the nonthesis option, a research paper must be approved by the student's committee and filed with the Department of Modern Languages before the comprehensive examinations may be taken.

Required:
Languages: 700:195
2 hours
Spanish: Literature courses must include 780:231 or
780:235 and one 200-level course in Latin American
literature
12 hours
Spanish: Linguistics, grammar and/or translation courses ...... 8 hours
Spanish: Culture and Civilization course
780:221 or 780:152
.3 hours

6 hours of 780:299 required for thesis option
No more than six (6) hours of Translation 780:145 and/or 780:245 may be applied toward this major.

## Major in Spanish: Teaching <br> Emphasis

This program is offered on the non-thesis option only. A minimum of 34 semester hours is required, of which a minimum of sixteen (16) hours must be at the $\mathbf{2 0 0}$-level; a minimum of twenty (20) of those credits must represent courses taught in Spanish.

Prerequisites: Student must hold a valid teaching license and must have documentation of successful teaching experience. The student who has not completed 700:190, 780:101 and 780:103, or equivalents, before entering the program must add these courses to the requirements listed below.

## Required:


Measurement and Research: 250:205 or equivalent.............. 3 hours
Spanish:
Methods courses, one of which must be a
methodological topic in 780:284,
780:286 or 780:289 ...oco.o.o.........................o.o.o.o............. 6 hours
Linguistics, grammar and/or translation courses, one of which must be at the 200-level, and one language-specific .6 hours
Culture and Civilization courses . ..... 6 hours
Must be taught in Spanish, with one course at
200-level Literature courses8 hours
Must be taught in Spanish, with two courses at 200-level.. 2 hours34 hours

Students 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 committee and filed with the Department of Modern Languages before comprehensive examinations may be taken.

## Major in Speech-Language Pathology

This major is available on the thesis and non-thesis options. A minimum of six (6) hours of 51 C :299 is required for the thesis option. A minimum of 40 semester hours is required for the thesis option, and a minimum of 39 hours is required for the non-thesis option. A minimum of thirty-two (32) hours 200-level course work is required. GRE examinations are required for all applicants.

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.

Communicative Disorders: 51C:106*; 51C:107*; 51C:111*;
51C:114*; 51C:125*; 51C:127*; 51C:129*; 51C:151*;
51C:152*; 51C:155*; 51C:162*; 51C:166*; 51C:168*;
51C:175*; 51C:177*; 51C:180*.
Required:
Communicative Disorders: 51C:200; 51C:282 ...................... 4 hours
Speech-Language Pathology Core: 51S:222; 51S:226;
51S:228; 51S:229; 51S:230; 51S:232; 51S:250; 51S:252;
$\qquad$
Research: 51C:299 ...................................................................-6 hours
Thesis option (6 hours)
Non-thesis option (1-3 hours)


A minimum of 2 hours of $51 \mathrm{~S}: 289$ is required and
other courses as approved by the graduate advisor.
Thesis option ( 5 hours)
Non-thesis option (9 hours)
39-51 hours
$51 \mathrm{~S}: 255$ will be waived if the student has had $51 \mathrm{C}: 155$, undergraduate clinical practice, or an equivalent course.

Students may select a thesis or non-thesis option upon consultation with their graduate advisor. In the Department of Communicative Disorders, all students must have the signature of their advisor for registration for classes, including all adds and drops. Students who are suspended by the Graduate College may not enroll for major courses within this department.

All students must abide by the policies and procedures found in the Graduate Student Handbook, which is published by and available in the department.

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 six (6) additional hours in one or two areas of emphasis. 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.

Students seeking endorsement \#237 by the Iowa Department of Education must enroll in Human Relations (280:170g). In addition, students are required to complete a minimum of ten (10) semester hours of course work in professional education, to be selected under guidance of the major academic advisor, and ten (10) semester hours of practicum in a public school internship.

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 disabled in a wide variety of settings including schools, hospitals, clinics, and care centers for the elderly.

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

This major is available on the thesis and non-thesis options, and requires a minimum of 33 semester hours. The thesis option includes six (6) hours of 630:299 Research; the non- thesis option requires an approved research paper. A minimum of fifteen (15) hours of 200-level course work is required for either option.

Both the thesis and non-thesis options require successful completion of a comprehensive examination as specified by the TESOL/Applied Linguistics faculty. See the TESOL Graduate Coordinator for details.

All students who have not had the following courses, or the equivalent, must include these courses as part of their graduate major:

TESOL/Applied Linguistics: 630:125 or 630:130; 630:154; 630:156 or 630:160.
Students are required to meet with their advisors for a Program Approval interview. Students should complete this interview during the first semester of their course work. The department may require a student to complete course work in addition to the minimum of 33 semester hours required for a master's degree. In such cases, these hours will be specified at the time of the interview.

Required:
TESOL/Applied Linguistics: 630:201; 630:292; 630:240 or $630: 295 ; 630: 297$

12 hours
Electives (including 6 hours 630:299 for those on the
thesis option) 21 hours 33 hours
Native speakers of English must demonstrate proficiency in anothed language by earning at least a $\mathbf{C}$ grade in a second-semester, college level course or by passing a specially designed examination International students must have achieved a Test of English as a Foreigr Language (TOEFL) score of 600 , or the equivalent, in order to demond strate their proficiency in English. An international student may be required to take additional English language improvement courses at the discretion of the TESOL/Applied Linguistics faculty. Work taken to satisfy the language proficiency requirement does not count toward the 33 semester hours required to complete the major program.

Students on the both the thesis and non-thesis options are required to successfully complete a comprehensive examination as specified by the TESOL/Applied Linguistics faculty. See the TESOL Graduatd Coordinator for details.

Students who wish state licensure to teach should request information concerning licensure requirements from the Director of Teachent 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 related technical fields. This major offers four emphases: A. Industrial Supervision and Management; B. Industrial Training; C. Manufacturing Procesd Development; and D. Technology Education. Emphases A, B, and C of this major require a student to:

1) have earned a minimum of eight (8) semester hours of college mathematics and eight (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 fifteen (15) semester hours in a major technical field and eight (8) semester hours in supporting technical subjects; and
3) have or acquire five hundred (500) hours of recent and significant trade, technical, or technology teaching experience in her/his particular field or emphasis. Three (3) semester hours of approved co-op education/internship may be substituted and be taken prior to or during the program.
Emphasis D of this major requires a student to:
4) have completed a minimum of one (1) course in college mathematics, one (1) course in college physics and/or chemistry or other science related to the major area, and one (1) course in computer programming, or a computer-based course;
5) have evidence of professional or leadership experiences.

The Industrial Supervision and Management, Industrial Training and
Manufacturing Process Development emphases are available on both
thesis and non-thesis options. A minimum of 31 semester hours is required for the thesis option and a minimum of 33 semester hours for the non-thesis option. The emphasis in Technology Education is available only on the non-thesis option and requires a minimum of 33 semester hours. The successful completion of the Departmental Professional Career Development Plan (PCDP) is required for all emphases.

Students on the thesis option must complete six (6) semester hours of 330:299. For the non-thesis option it is expected that the departmental research paper will be completed in the 330:292 and 330:270 course sequence, or other 200 -level courses. Students on the non-thesis option must complete a written comprehensive examination.

Required core for all four emphases $\qquad$ 9 hours
Industrial Technology: 330:200; 330:270 or
330:299 ( 3 hrs.); 330:282; 330:292
Emphasis:
22-24 hours
31-33 hours

## A. Industrial Supervision and Management (22-24 hours)

This emphasis provides advanced education for individuals who wish to expand their qualifications for supervisory positions in industry, business, and government.

Required:

Industrial Technology: 330:200; 330:258; 330:260; 330:282; 330:292; 330:294; 330:295 ....ocococo......onooopp.. 18 hours
English Language and Literature: 620:105 .poococo...noonooco 3 hours
Required Research:
Thesis: 330:299 ......................................................................... hours
OR
Non-thesis: 330:270 (for completion of the departmental research paper) 3 hours
Electives approved by advisor:

OR

Suggested electives:
Management: 150:249; 150:266.
Industrial Technology: 330:119; 330:143; 330:250.
Psychology: 400:157; 400:158.
Mathematics: 800:172.
Economics: 920:135.
31-33 hours

## B. Industrial Training (22-24 hours)

This emphasis provides advanced education for the individual wanting to establish proficiency as a trainer, developer of instructional materials, or as an administrator for technical training programs in industry.

[^4]
## C. Manufacturing Process Development (22-24 hours)

This emphasis offers an excellent opportunity for individuals with technical preparation to expand their knowledge and skills in areas related to manufacturing technology and systems.

Required:
Industrial Technology: 330:119; 330:143; 330:200; 330:282; 330:292 ............................................................ 12 hours

English Language and Literature: 620:105 ....................... 3 hours
Required Research:

OR
Non-thesis: 330:270 (for completion of the

Electives approved by advisor:
Thesis
.7 hours

## OR

Non-thesis $\qquad$ 12 hours
Suggested electives:
Industrial Technology: 330:106; 330:113; 330:122;
330:127; 330:132; 330:134; 330:136; 330:137;
330:141; 330:142; 330:145; 330:146; 330:147;
330:148; 330:151; 330:152; 330:156; 330:157;
330:158; 330:160; 330:162; 330:164; 330:172;
330:177; 330:192; 330:240; 330:245; 330:254; 330:260; 330:284; 330:286.

31-33 hours

## D. Technology Education (24 hours)

Available on the non-thesis option only. This emphasis provides advanced education for individuals who wish to expand their qualifications in the area of technology education.

Required:
Industrial Technology: 330:200; 330:280; 330:282; 330:292

12 hours

Educational Technology: 240:205
Industrial Technology: 330:168; 330:228; 330:291
One course from the following.
3 hours
Instructional Development: 200:214 or 240:240
Industrial Technology: 330:297
Required Research: 330:270 (for completion of the


Suggested electives:
Industrial Technology: 330:119;330:122; 330:130;
330:150; 330:158; 330:162; 330:177; 330:294; 330:296.

## Master of Arts Degree

## Combined B.A./M.A. or B.S./M.A. Technology

Students interested in the program should declare their intent by the end of the junior year. They should complete an Application for Admission to Graduate Study and indicate their interest in the Combined Program in Technology on the application form.

Once admitted to the program, undergraduate students (who are classified as seniors), may register for graduate credit as a senior, with the approval of the department head. (See guidelines on page 129). The student presents a signed Student Request Form with appropriate signatures, when registering for graduate credit as a senior. The combined total of course credits, both undergraduate and graduate, may not exceed fifteen (15) hours in a semester, or eight (8) hours in a summer session.

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 course work is taken. Actual admission to graduate study and classification as a graduate student commences the semester after the student has completed the baccalaureate.

## Major in TESOL/Modern Languages

This major is available on the non-thesis option only. A minimum of 33 semester hours is required, including a minimum of eighteen (18) hours at the 200-level. An approved research paper is also required. The student who has not completed $7 \times 0: 101$ and either 630:125 or $630: 130$ (or the equivalent) before entering the master's degree program must add these courses to the requirements listed below. There is no separate modern language requirement.

This M.A. major requires successful completion of a comprehensive examination as specified by the TESOL/Applied Linguistics and Modern Language faculties. See the TESOL Graduate Coordinator for details.

Required:
TESOL/Applied Linguistics: 630:192; 630:193 or
630:194; 630:201; 630:240 or 630:289 or 630:295;
630:292; 630:297 18 hours
Electives: One of the following language emphases for a minimum total emphasis of 15 hours of which 6 hours must be at the 200 -level

15 hours 33 hours

## French Emphasis:


French: 720:124 or 720:125; 720:203 or 720:207 ............ 6 hours
Plus courses approved by the graduate

15 hours

## German Emphasis:

Languages: 700:190 .......................................................... 3 hours

Plus courses approved by the graduate
German advisor 2 hours 15 hours
Spanish Emphasis:

Spanish: 780:146 or 780:152 or 780:166 or 780:221; 780:145 or 780:245; 780:240........................................ 9 hours
Plus courses approved by the graduate Spanish advisor $\qquad$ 3 hours 15 hours

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. Students with this M.A major are required to successfully complete a comprehensive examinad tion as specified by the TESOL/Applied Linguistics and Modery Language faculties. See the TESOL Graduate Coordinator for detaila, An international student may be required to take additional Englisk) language development courses at the discretion of the TESOL/Applied Linguistics faculty.

Students who wish state licensure to teach should request informa-1 tion concerning licensure requirements from the Director of Teached Education, University of Northern Iowa, or from the Department of Education in the state in which they plan 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 Theatre

This major is available on the thesis and non-thesis options. A minimum of 30 semester hours, including six (6) hours for 490:299 thesis research and writing, is required for the thesis option; a minimum of 32 semester hours is required for the non-thesis option. A minimum of eighteen (18) hours of $\mathbf{2 0 0}$-level course work is required for the thesis option. A minimum of twelve (12) hours of $\mathbf{2 0 0}$-level course work is required for the non-thesis option.

Detailed information on this 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 Theatre.

## Thesis Option:

Required:
Theatre: 490:156; 490:280; 490:284; 490:289 ....................... 12 hours


Must include at least 3 additional hours of 200-level course work; no more than 3 hours of workshop credit;
no more than 6 hours of "readings," "projects," or specialized individual instruction.
Of the required 30 hours for the major, no more than 10
hours may be outside the department and/or by transfer.
30 hours
This option requires the successful completion of comprehensive examinations (after at least 22 hours of course work).

## Non-Thesis Option:

Required:
Theatre: 490:156; 490:280; 490:284; 490:289 ....................... 12 hours

Must include at least 3 additional hours of 200-level course work; no more than 3 hours of workshop credit; no more than 6 hours of "readings," "projects," or specialized individual instruction.
Of the required 32 hours for the major, no more than 10
hours may be outside the department and/or by transfer.
32 hours
This option requires both successful completion of comprehensive examinations (after at least 22 hours of course work), and the completion of a research paper.

# Major in Two Languages: French/German, Spanish/French, German/Spanish 

The Two-Languages Major is available on both the thesis and nonthesis options for a minimum of 34 semester hours. A minimum of twenty (20) hours of $\mathbf{2 0 0}$-level course work is required for the thesis option. A minimum of sixteen (16) hours of $\mathbf{2 0 0}$-level course work is required for the non-thesis option.

Required:

Literature courses: a 200-level course in each language............ 6 hours
Linguistics courses: a 200-level course in each language .......... 6 hours
Culture and Civilization courses: a course in each language.... 6 hours

6 hours of xac:299 required for the thesis option
The student's program will be planned in consultation with her/his advisor.

## Thesis Option:

In addition to six (6) hours of xux:299 for the thesis, a minimum of thirteen (13) hours in each of the target languages is required. Of these, at least seven (7) hours in each language must be at the 200 -level.

## Non-Thesis Option:

A minimum of sixteen (16) hours in each of the target languages is required. Of these, at least eight (8) semester hours in each language must be at the $200-$ level.

## Major in Women's Studies

The M.A. in Women's Studies is a thesis-only program requiring a minimum of 34 semester hours of study. Fifteen (15) hours of $\mathbf{2 0 0}$ level course work, including 6 hours of $\mathbf{x x x}: 299$, is required. Additional non-program hours may be required, if courses on a student's program of study have prerequisites which instructors choose not to waive. In addition to course and thesis requirements, students must pass written and oral comprehensives. Its curriculum is designed to meet the needs of students who strive for analytic clarity and rigor in genderfocused research. Students may employ the skills in reflective and critical analysis as well as the broad base of knowledge that they obtain in the program to 1) prepare for a Ph.D. program with a disciplinary or interdisciplinary focus on gender or, 2 ) enhance leadership skills for a career in the public or private sector or, 3) satisfy strong intellectual interests and curiosity while pursuing advanced education in the liberal arts.

Through core courses and selected electives, students enrolled in the Master of Arts in Women's Studies will accomplish several objectives: 1) examine theories concerning the social and historical constructions of gender; 2) explore how gender defines relationships among women, among men, and between men and women; 3) recognize that women's lives have been under-represented in traditional disciplines and investigate previously neglected materials in order to identify women's as well as men's roles in cultural or social endeavors; 4) study, compare, and evaluate an array of disciplinary perspectives on gender, including, but not limited to, cross-cultural, economic, sociological, historical, and literary perspectives; 5) identify intersections of gender with race, class, age, sexual identity, and ethnicity, both locally and globally, both in the present and in the past; and 6) employ new methodological and critical approaches to materials customarily treated in other ways, revising the content and assumptions of particular disciplines to address gender more effectively.

Admission to the program is competitive. Detailed information on admissions requirements and procedures may be obtained from the Director of the Graduate Program in Women's Studies.

Required:



English: 620:206 or

Research: xxx:299 ,.............................................................................. 6 hours

With approval of thesis advisor, one course from the following: 250:301; 250:302; 400:239; 48C:113; 48C:180; 48C:183; 48C:185; 48C:189; 48C:190; 48C:222; 620:161; 620:201; 960:290; 980:160; 980:161; 980:165; 980/990:178;980:201.
Electives ............................................................................................. 2 hours 34 hours
With the approval of their thesis advisor, each student individually designs an elective sequence, selecting courses from the humanities, fine arts, social and natural sciences that most expressly contribute to their thesis project.

For more information contact the Women's Studies Office, Baker 168, (319) 273-7102, or the World Wide Web http://www.uniedw/womenstudies.

## Master of Arts in Education <br> 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.

Many programs at this level carry with them the requirements for teacher licensure. In some cases, the student may be building up competency in a field in which s(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 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.

Detailed information for each program and specific requirements for each major may be obtained from the head of the department offering the major.

## Department of Curriculum and Instruction

Early Childhood Education
Education of the Gifted
Elementary Education
Elementary Reading and Language Arts
Middle Level Education
Reading Education
Secondary Reading
Department of Educational Leadership, Counseling, and Postsecondary Education

Postsecondary Education: Student Affairs
Principalship
School Counseling

## Department of Educational Psychology and Foundations

Educational Psychology
Educational Psychology: Professional Development for Teachers

## 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

Students who plan to receive the degree Master of Arts in Education (M.A.E.) must meet the graduation requirements for each major as described on pages 134 to 136.

## Department of Curriculum and Instruction

## 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 minimum of 30 semester hours.

The program is designed to increase the student's competence in working in educational programs for children from birth to age 7.

This major is available on the thesis and non-thesis options. A minimum of fifteen (15) hours of $\mathbf{2 0 0}$-level course work is required for the thesis option. A minimum of twelve (12) hours of 200-level course work is required for the non-thesis option. All students completing the thesis option are required to pass an oral examination prepared and administered by the thesis committee. The examination will be comprehensive in nature and will normally accompany the thesis defense. Students on the thesis option must include six (6) hours of $210: 299$ on the program of study. Students completing the non-thesis option are required to complete the departmental graduate research requirement.

Required professional core:
Educational Psychology: 200:214 or
Social Foundations: 260:234 ...o.................................................. 3 hours
Measurement and Research: 250:205 ......o..........................o.... 3 hours
Required curriculum core:
Elementary, Early Childhood, and Middle Level Education: 210:201; 210:289; 210:299 (6 hrs. required on the thesis option); competency in human development ....o.o........o..........8-11 hours Specialty area:

Elementary, Early Childhood, and Middle Level Education: 210:214; 210:220; 210:221 ............................. 9 hours Required:

Educational Psychology: 210:155; 210:225; 210:228 ........... 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. In addition to the common professional core, the student must complete a curriculum core, required courses in the specialty area, and electives for a minimum of $\mathbf{3 0}$ semester hours.

The program is designed to improve the student's competence in teaching gifted and talented children and youth and in providing leadership for program development and implementation.

This major is available on the thesis and non-thesis options. A minimum of fifteen (15) hours of $\mathbf{2 0 0}$-level course work is required for the thesis option. A minimum of twelve (12) hours of $\mathbf{2 0 0}$-level course work is required for the non-thesis option. Students completing the thesis option are required to pass an oral examination prepared and administered by the thesis committee. The examination will be comprehensive in nature and will normally accompany the thesis defense. Students completing the thesis option must
include six (6) hours of 210:299 on the program of study. Studente completing the non-thesis option are required to complete the departmental graduate research requirement and to pass a written comprehensive examination prepared and administered by the department at the end of the program of study.

Required professional core:
Educational Psychology: 200:214 or
Social Foundations: 260:234
3 hours

Required curriculum core:
Elementary, Early Childhood, and Middle Level Education: 210:201; 210:289; 210:299 ( 6 hours of $2 \times 0: 299$ Research

Specialty area:
Elementary, Early Childhood, and Middle Level Education: 210:254; 210:255 .6 hours
Measurement and Research: 250:282 .......o.o............................. 3 hours

30 hours

## 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 minimum of 30 semester hours.

The program is designed to improve the individual's effectiveness as a classroom teacher, instructional leader, and curriculum developer.

This major is available on the thesis and the non-thesis options. A minimum of fifteen (15) hours of 200-level course work is required for the thesis option. A minimum of twelve (12) hours of $\mathbf{2 0 0}$-level course work is required for the non-thesis option. Students completing the thesis option are required to pass an oral examination prepared and administered by the thesis committee. The examination will be comprehensive in nature and will normally accompany the thesis defense. Students on the thesis option must include six (6) hours of $210: 299$ on the program of study. Students completing the non-thesis option are required to complete the departmental graduate research requirement.

Required Professional Core:
Educational Psychology: 200:214 or
Social Foundations: 260:234
3 hours

Required Curriculum Core:
Elementary, Early Childhood, and Middle Level Education: 210:201; 210:289; 210:299 (6 hours of Research required on the thesis option.) 8-11 hours EMPHASIS - Select one of the following from below:

Elementary Teaching, Elementary Mathematics, Elementary Science, or Elementary Social Studies .8-9 hours
 30 hours
Elementary Teaching Emphasis (8-9 hours)
Elementary, Early Childhood, and Middle Level Education: 210:242; 210:243.
One course in the Reading and Language Arts area.
Elementary Mathematics Teaching Emphasis (9 hours)
Elementary, Early Childhood, and Middle Level Education: 210:141.
Mathematics: 800:220 and 3-4 hours from 800:191; 800:211; 800:213; 800:214; 800:215; 800:236; 800:237; 800:238.

## Elementary Social Studies Teaching (9 hours)

Elementary, Early Childhood, and Middle Level Education: 210:143; 210:243; 210:286.
Elementary Science Teaching Emphasis (9 hours)
Elementary, Early Childhood, and Middle Level Education: 210:141; 210:212; 210:242.

## 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 $\mathbf{3 0}$ semester hours of course work is required.

This major is available on the thesis and non-thesis options. A minimum of fifteen (15) hours of $\mathbf{2 0 0}$-level course work is required for the thesis option. A minimum of twelve (12) hours of $\mathbf{2 0 0}$-level course work is required for the non-thesis option. Students completing the thesis option are required to pass an oral examination prepared and administered by the thesis committee. The examination will be comprehensive in nature and will normally accompany the thesis defense. Students on the thesis option must include six (6) hours of 230:299 on the program of study. Students completing the non-thesis option are required to complete the departmental graduate research requirement and to pass a written comprehensive examination prepared and administered by the department at the end of the student's program of study.

Required prerequisites if not completed at the undergraduate level:
Reading and Language Arts: 230:044; 230:111; 230:113; 230:115; 230:116; 230:140; 230:144.
One course in American literature.
Required:
Educational Psychology: 200:214 or
Social Foundations: 260:234 $\qquad$ .3 hours
Reading and Language Arts: 230:210; 230:250; 230:289; 230:290; 230:299 ( 6 hours of Research required on the thesis option)

21 hours
Measurement and Research: 250:205 .ho................................ 3 hours
A minimum of 3 semester hours of course work in


30 hours

## Major in Middle Level 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 level education specialty area, and electives for a minimum of $\mathbf{3 0}$ semester hours.

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.

This major is available on the thesis and non-thesis options. A minimum of fifteen (15) hours of $\mathbf{2 0 0}$-level course work is required for the thesis option. A minimum of twelve (12) hours of $\mathbf{2 0 0 - l e v e l}$ course work is required for the non-thesis option. Students completing the thesis option are required to pass an oral examination prepared and administered by the thesis committee. The examination will be comprehensive in nature and will normally accompany the thesis defense. Students on the thesis option must include six
(6) hours of 210:299 on the program of study. Students completing the non-thesis option are required to complete (1) the departmental graduate research requirement and (2) a performance-based and/or stan-dard-based measure demonstrating student competency upon completion of the program.

Required professional core:
Educational Psychology: 200:214 or

Measurement and Research: 250:205 ...................................... 3 hours
Required curriculum core:
Middle Level Education: 210:201; 210:289; 210:299;
( 6 hours of research required on the thesis option.) .......8-11 hours
Specialty area:
Middle Level Education: 210:135; 210:270;
competency required in adolescent psychology .............6-8 hours
Electives: At least one course from the following: 200:151;
210:141; 210:204; 210:297; 230:xxc; and an additional
course to include a minimum of 30 hours for the major. .. $5-10$ hours
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 initial teaching 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 is required.

This major is available on the thesis and non-thesis options. A minimum of fifteen (15) hours of $\mathbf{2 0 0}$-level course work is required for the thesis option. A minimum of twelve (12) hours of $\mathbf{2 0 0}$-level course work is required for the non-thesis option. Students completing the thesis option are required to pass an oral examination prepared and administered by the thesis committee. The examination will be comprehensive in nature and will normally accompany the thesis defense. Students on the thesis option must include six (6) hours of 230:299 on the program of study. Students completing the non-thesis option are required to complete the departmental graduate research requirement and pass a written comprehensive examination prepared and administered by the department at the end of the student's program of study.

Required prerequisites 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: 230:132; 230:140; 230:147; 230:192.

## Required:

Educational Psychology 200:214 or
Social Foundations: 260:234 $\qquad$ 3 hours
Reading and Language Arts: 230:238; 230:240; 230:260; 230:290; 230:299 ( 6 hours of Research required for the thesis option) 14-20 hours
Measurement and Research: 250:205 or other research course 3 hours Electives as approved by advisor ...................ococo.o............a.o. \&e 10 hours

30 hours

## Master of Arts in Education Degree

## 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. A minimum of $\mathbf{3 0}$ semester hours is required.

This major is available on the thesis and non-thesis options. A minimum of fifteen (15) hours of 200-level course work is required for the thesis option. A minimum of twelve (12) hours of 200 -level course work is required for the non-thesis option. Students completing the thesis option are required to pass an oral examination prepared and administered by the thesis committee. The examination will be comprehensive in nature and will normally accompany the thesis defense. Students on the thesis option must include six (6) hours of 230:299 on the program of study. Students completing the non-thesis option are required to complete the departmental graduate research requirement and to pass a written comprehensive examination prepared and administered by the department at the end of the student's program of study.

Required prerequisites if not completed on the undergraduate level:
Educational Psychology 200:116.
Reading and Language Arts: 230:130; 230:132; 230:140; 230:147; $230: 192$.
Measurement and Research: 250:181.
English Language and Literature: 620:165.

## Required:

Educational Psychology: 200:214 or
Social Foundations: 260:234 $\qquad$ 3 hours
Reading and Language Arts: 230:134; 230:210; 230:289; 230:290; 230:299 (2-6 hours). .14-18 hours
Measurement and Research: 250:205
3 hours
Course work in related areas ..... 6-10 hours
Communication Studies: 48C:122; 48C:141.Communicative Disorders: 51C:106.

English Language and Literature: 620:105; 620:193.
TESOL/Applied Linguistics: 630:130; 630:190.

## Department of Educational Leadership, Counseling, and Postsecondary Education

## Major in Postsecondary Education: Student Affairs

This major is designed to prepare an individual for a career in the administration of student affairs programs in college and university settings. This major is available on the thesis and non-thesis options, and requires a minimum of 44 semester hours. A minimum of thirty-nine (39) hours of 200 -level course work is required for the thesis option. A minimum of thirty-five (35) hours of 200levei course work is required for the non-thesis option.

Required Professional Core:
Educational Psychology: 200:214 or
Social Foundations: 260:234 $\qquad$ 3 hours

Postsecondary Education Core:
Postsecondary Education: Student Affairs: 170:218;

170:289 Semintar.............o.o......................................................... 3 hours
170:290 Practicum (two are required for 6 hrs.) .nomenoono.one.. 6 hours

Electives from the following
Management: 150:130.
Postsecondary Education: Student Affairs:
170:230; 170:250; 170:252; 170:256; 170:262;
170:285; 170:291.
Educational Psychology: 200:214.
Measurement and Research: 250:180; 250:181; 250:300; 250:302.
Social Foundations: 260:234.
Counseling: 290:105; 290:220; 290:224; 290:225; 290:256.
Psychology: 400:157; 400:158.
Communication Studies: 48C:151; 48C:153.
44-48 hours
Note: Upon advisement, some students may substitute course work for practicum. A license to teach is not required for this major.

## Major in Principalship

This major is available on the thesis and non-thesis options. A minimum of $\mathbf{4 5}$ semester hours is required on the thesis option; a minimum of 39-40 hours is required on the non- thesis option. A minimum of thirty-nine (39) hours of 200-levei course work, inciuding six (6) hours of 270:299, is required for the thesis option. A minimum of thirty-nine (39) hours of $\mathbf{2 0 0}$-level course work is required for the non-thesis option. 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 the student must have five years of teaching experience, three of which must have been at either the elementary or secondary level. This program will be offered to cohort groups of 20-25 students on and off campus over the ICN and in face-to-face instructional sessions. This program will require the student to participate within the cohort group for a period of 3 years. New cohort groups will be started each year starting at the beginning of the fall semester.

## Required Professional Core:

Educational Psychology: 200:214 or
Social Foundations: 260:234 ...
3 hours
Measurement and Research: 250:205 3 hours
Required Educational Leadership Core:
Educational Psychology: 200:116** or 200:232*
2-3 hours
Special Education: 220:260 ........................o.o........o.o...os...... 3 hours
Educational Leadership: 270:206; 270:208; 270:224; 270:232; 270:245; 270:247; 270:249; 270:280; 270:282; 270:284 .25 hours
Practicum (270:290 - Elementary or Secondary Principalship) integrated throughout the program
........ 3 hours 39-40 hours

## Thesis Option

Research: 270:299
*Students seeking endorsement as an elementary principal will take 200:232 and Practicum 270:290 at the elementary level.

## Major in School Counseling

This program is designed for those who intend to work as counselors in school settings. Students completing this program will be eligible for K-12 licensure in School Counseling. Students do not need a teaching certificate or teaching experience to complete the program, but should check state department requirements in specific states to determine if these are necessary to be employed as a school counselor. Students completing this program must pass a written comprehensive examination, successfully complete a research paper, and fulfill pro-gram-specific exit requirements.

This major is available on the thesis and non-thesis options. A minimum of $\mathbf{6 2}$ semester hours is required for the thesis option which includes six (6) hours of $290: 299$, and a minimum of 56 semester hours for the non-thesis option. A minimum of fifty-one (51) hours of 200 -level course work is required.

Program requirements and detailed information on the major, including admission policies and procedures, should be obtained from the Department of Educational Leadership, Counseling, and Postsecondary Education.

Required:
Educational Psychology: 200:214; 200:235.......................... 6 hours
Measurement and Research: 250:205 .................................. 3 hours
Counseling: 290:103; 290:105; 290:210; 290:220; 290:224; 290:225; 290:226; 290:227; 290:228; 290:250; 290:254; 290:256; 290:262 ................................. 38 hours Required Practicum and Internship:

Counseling: 290:290; 290:291 ( 6 hrs.) $\qquad$ 56 hours

## Thesis Option

Research: 290:299.............................................................. 6 hours
62 hours

## Program Certificates

For information on the following Program Certificate, see page 128 or contact the Department of Educational Leadership, Counseling, and Postsecondary Education.

Advanced Studies Certificate in Educational Leadership Emphasis: Principalship Emphasis: Superintendency

## Department of Educational Psychology and Foundations

## Major in Educational Psychology

This major is available on the thesis and non-thesis options. A minimum of 36 semester hours is required for the thesis option and a minimum of 33 semester hours for the non- thesis option. A minimum of fifteen (15) hours $\mathbf{2 0 0}$-level course work is required for the thesis option. A minimum of twelve (12) hours 200 -level course work is required for the non-thesis option. GRE examinations are required for all applicants.

This major is planned as follows: to prepare community college personnel to teach pre-professional teacher-education courses; for persons working as instructors in health professions; for those who are working in business, community, governmental, and human services occupations; or for those students planning further graduate studies in educational or school psychology. For employment as a School Psychologist, the Ed.S. degree is required. A student who expects to teach in college should take Postsecondary Education: Student Affairs 170:250 and 170:256.

Required Professional Core:
Educational Psychology: 200:214.............................................. 3 hours
Measurement and Research: 250:205................................................ 3 hours
Social Foundations: 260:234 or 200:140 (as approved
by advisor) ........................................................................... 3 hours
Educational Psychology Emphasis: completion of at least
15 hours (advisor approved) in one of the three
emphases listed below
.15 hours
Professional Studies .........................................................................3-6 hours
Non-thesis option: 3 hrs. from 200:285, 200:290, 200:299
Thesis option: 6 hrs . of 200:299
Electives: a minimum of 6 hours from the following ..................... 6 hours
Postsecondary Education: Student Affairs: 170:250; 170:256
Educational Psychology: 200:109; 200:139; 200:151; 200:170; 200:173; 200:176; 200:188; 200:230; 200:232; 200:289
Social Foundations: 260:120; 260:134
Electives other than those above may be selected with consent of the graduate coordinator or students may select 6 hours from an emphasis other than their own.
$\overline{33-36}$ hours

## Development and Learning Emphasis:

Educational Psychology: 200:235 or (200:116 and 200:285); 200:220; 200:224; 200:241.
Measurement and Research: 250:180.

## Research and Evaluation Emphasis:

Measurement and Research: 250:180; 250:181; 250:281; 3 hours in Development and Learning Emphasis; and one course from the following: 250:270; 250:300; 250:301; 250:302.

## Context and Techniques of Assessment Emphasis:

Educational Psychology: 200:240; 200:280; 200:286; 200:289.
Measurement and Research: 250:281; 250:282; 250:283; 250:284.

## Major in Educational Psychology: Professional Development for Teachers

This degree program is specially designed to fulfill the professional development needs of experienced teachers. The intent of the program is to enable participants to increase their knowledge base in content areas or to develop expertise in new content areas while sharpening their understanding and skills as classroom teachers. The program seeks to provide a course of study directly tied to teaching practice, in which course selection, student learning, and required research are organized around issues and problems which teachers view as important. The degree program provides ample opportunity for exploring the relationship between theory and practice, with a focus on improving student learning. The program presents a variety of opportunities for peer collaboration, development of strategies for implementing innovations in classroom practice, and thoughtful analysis of contemporary issues and problems facing teachers.

This degree program invites participation from early childhood, elementary, middle school, and high school teachers. This major is available on the thesis and non-thesis options. A minimum of $\mathbf{3 0}$ semester hours is required for the thesis option and a minimum of 36 semester hours for the non-thesis option. The thesis or research paper is expected to explore a topic that will improve classroom practice and student learning. A minimum of fifteen (15) hours of 200level course work is required for the thesis option. A minimum of tivelve (12) hours of 200-level course work is required for the non-thesis option. An oral examination is taken after the student has completed all course work and the writing requirement.

Required Professional Core:
Educational Psychology. 200:214.
3 hours



Non-thesis option (1 hour)
Thesis option ( 6 hours)
Required:
A minimum of $8-12$ hours from each of the following
three professional components:
Component I; Advanced professional course work ......... $8-12$ hours
Component II*: Theoretical-philosophical course work $.8-12$ hours
Component III: Advanced academic course work taken
from one department
8-12 hours
30-36 hours

* A student may use one of two common professional core courses, either $200: 214$ or $\mathbf{2 6 0 : 2 3 4}$, to falfill three hours of the Component II requirements.


## Department of Special Education

## Major in Special Education

This major is designed to prepare special education professionals for leadership positions and for advanced professional studies. To be eligible for the Special Education Consultant Endorsement the student must have four years of successful teaching experience, two of which must be congruent with the Special Education Consultant endorsement desired. Students desiring to be endorsed as Work Experience Coordinators must hold a Special Education Teaching 7-12 Endorsement. Students admitted into the Field Specialization or Consultant Emphasis must take six (6) hours of 220:290. Students admitted into the Career/Vocational Programming and Transition Emphasis must take nine (9) hours of 220:290.

This major is available on the thesis and non-thesis options, and requires a minimum of 30 semester hours. Students on the thesis option must complete six (6) hours of 220:299 Research and present a defense of the thesis. Students on the non-thesis option must submit an acceptable graduate research paper and successful written comprehensive examination. A minimum of eighteen (18) hours of $\mathbf{2 0 0}$-level course work is required for both thesis and non-thesis options.
Required Professional Core:
Educational Psychology: 200:214 or
Social Foundations: 260:234 ..... 3 hours
Measurement and Research: 250:205 ..... 3 hours
Required Special Education Core:
Special Education: 220:289 ..... 3 hours
Emphasis in Special Education (choose one from below) ........ 21 hours30 hours
Field Specialization Emphasis
Required:
Special Education: 220:256 or 220:260; 220:290 ..... 9 hours
Approved electives ( 6 hours of $220: 299$ Research required on thesis option) ..... 12 hours21 hours
Special Education Consultant Emphasis
Required:
Elementary, Early Childhood, and Middle Level Education: 210:221 or 210:270 ..... 3 hours
Special Education: 220:240; 220:245; 220:290 ..... 11-12 hours
Approved electives ( 6 hours of $220: 299$ Research required on thesis option)

# Career/Vocational Programming and Transition Emphasis <br> Prerequisite: 220:151. <br> Required: <br> Industrial Technology: 330:182........................................2-3 hours <br> Special Education: 220:254; 220:290................co................ 12 hours <br> Approved electives ( 6 hours of $220: 299$ Research <br> required on thesis option) 6 hours <br> 20-21 hours <br> <br> Master of Business <br> <br> Master of Business Administration Degree 

 Administration Degree}

Graduate study in business at UNI provides a broad-based, integrated program which emphasizes the functional areas of business in order to pro-1 vide the graduate with a balance between theoretical knowledge and practif cal 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 M.B.Aprogram is accredited by the International Association for Managemen Education (AACSB).

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 implementa-1 tion; 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 techniqued and the use of quantitative data in the administration of busines controlss 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 (GMAT), 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. This program is available on the non-thesis option only. Students who enter the program with the undergraduate requirements of a baccalaureate degree in one of the areas of business will normally require 31 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 some Pre-MBA courses in business or show that they have completed equivalent courses in previous academic work. A minimum of twelve (12) hours of 200-level course work is required for the non-thesis option. Candidates for the degree are also required to submit a research paper in the last semester of the program.

Required:


Management: 150:249; 150:250: 150:262;




$120: 280 ; 130: 280 ; 150: 280 ; 160: 280 ; 920: 280$
31 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 must consult with the Associate Director for Graduate Music Studies 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) enhanced opportunity in public and private school music teaching, 2) a college teaching career, 3) a performance career as a professional musician or composer, or 4) further graduate work at the doctoral level. The following majors are offered:

Composition
Conducting
Jazz Pedagogy
Music Education
Music History
Performance
Piano Performance and Pedagogy
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, conducting, 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 with at least two members of the Graduate Conducting Faculty. It is also recommended the applicant have two years of conducting experience beyond the baccalaureate degree. A video recording may be submitted in lieu of the inperson audition, but may not satisfy the audition requirement. Tapes should be of high quality and show the applicant in rehearsal situations, though performance recordings may also be included. Video recordings should include two or three works of varying styles, and be taken so as to clearly indicate the conductor's facial and other physical gestures.

Jazz Pedagogy: in-person audition and interview.
Music Education majors: in-person or telephone interview with a member of the Graduate Music Education faculty.

Music History majors: scholarly paper.
Performance majors and Piano Performance and Pedagogy majors: inperson 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, music history, expository writing skills, 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 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.

A minimum of fifteen (15) semester hours of 200-level course work is required of all majors enrolled for the thesis/recital option. The thesis option requires a minimum of six ( 6 ) semester hours of $\mathbf{x x x}: 299$ Research. A minimum of twelve (12) semester hours of 200-level course work is required of all majors enrolled for the non-thesis option.

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. The grade B-or above is required for all courses in the Graduate

Music Core as well as all core courses in the specific degree plans. Under extenuating circumstances, exceptions to this policy must be approved by the instructor of record, the Graduate Coordinator and the Director of the School of Music.

## Major in Composition

This major requires a minimum of 34 semester hours completed in the following program:
Required:
Graduate Music Core:


One course from the following -
590:110; 590:111; 590:112; 590:114; 590:115 .............. 3 hours
Specialization:
Applied Music: 540:254.......................................o.ono. 12 hours
Music electives: 11 hours, primarily in the areas
of music literature and theory
14 houm
34 hours

## Additional Requirements:

1. Performance recital of candidate-generated compositions.

2 Recital paper.

## Major in Conducting

This major requires a minimum of $\mathbf{3 6}$ semester hours completed in the following program:

## Required:

Graduate Music Core:


One course from the following -
590:110; 590:111; 590:112; 590:114; 590:115 .............. 3 hours
Specialization:
Music Organizations and Ensembles: 530:1xx* ..........o... 4 hours
(Only one hour of ensemble per semester will count toward degree requirements.)

Performance Literature and Repertory: 595:131,
595:140, or 595:142...........o............................................ 3 hours
Music electives: as approved by advisor .nemococococonoo...noo. 6 hours
36 hours
Additional requirements:

1. Two (2) consecutive semesters (fall/spring) of residency with fulltime status (minimum of 9 graduate hours per semester).
2. Conducting recital.
3. Recital paper.
4. Conducting document.
5. Score Reading:
A. Choral Conducting Majors - Ability to read and perform at the keyboard (allowing some time for advance preparation) an SAT'B open score of medium difficulty (e.g., Palestrina motet).
B. Instrumental Conducting Majors - Ability to read and interpret a moderately complex instrumental score.
6. Students are required to enroll in applied music in their performance area during the semester that they present their required recital.
*Large ensemble placement will be determined by audition.

## Major in Jazz Pedagogy

This major requires a minimum of 36 semester hours completed in the following program:

## Required:

Graduate Music Core:
Music Theory: 580:210; 580:211 .................................... 6 hours
Music History and Musicology: 590:221 ........................ 2 hours
One course from the following -
590:110; 590:111; 590:112; 590:114; 590:115* ............ 3 hours
Specialization:
Music Techniques: 560:152 or 560:252*; 570:252 .......... 4 hours
Music Theory: 580:127; 580:128 ...................................... 4 hours
Music Organizations and Ensembles: 530:116............... 8 hours
(2 hours in jazz ensembles participation
required each semester of residence)
Music electives 9 hours
To be selected from the following:
Applied Music: 540:140; 540:153; 540:156; 540:157.
Music Techniques: $560: 130$ preferred.
Music History and Musicology: 590:160 preferred.
Additional requirements:

1. Jazz performance recital.
2. Recital paper.
3. Jazz bass proficiency.
4. Jazz piano proficiency.
5. Jazz drum set proficiency.
*Strongly recommended

## Major in Music Education

This major is available on the thesis and non-thesis options. A minimum of 32-34 semester hours is required for the thesis option. A minimum of $\mathbf{3 0}$ semester hours is required for the non-thesis option.

Required:
Graduate Music Core:
Music Theory: 580:210; 580:211 ..o.a............................. 6 hours
Music History and Musicology: 590:221 nocoso.................. 2 hours
One course from the following -
590:110;590:111; 590:112; 590:114; 590:115 ............... 3 hours
Music Education Core:
Music Education: 570:221; 570:230; 570:245 .7 hours
Specialization (Choose from A, B1 or B2, or C) ...o.........o... 12 hours 30 hours

## Thesis Option:

Required:
Research: 570:299 (in lieu of electives in selected specialization) $\qquad$ 6 hours
32-34 hours

## Specialization:

A. Choral (12 hours)

Music Techniques: 560:122; 560:135.
Music Education and Methods: 570:130.
Performance Literature and Repertory: 595:131.
Electives*: 4 hours.

B. Instrumental ( 12 hours)

Option 1 - Band
Music Techniques: 560:121.
Music Education and Methods: 570:255.
Performance Literature and Repertory: 595:142.
Electives*: 4 hours.
Option 2 - Jazz
Music Techniques: 560:152 (three levels - Basic, Intermediate and Advanced).
Music Education and Methods: 570:255.
Music Theory: 580:127.
Electives*: (including course work in jazz pedagogy) 4 hours.
C. Elementary/General ( 12 hours)

Music Education and Methods: 570:275; 570:276; 570:277; 570:278; 570:279
*Electives as approved by Associate Director for Graduate Music Studies.
Note: A maximum of two (2) hours of ensembles (530:xox) and four (4) hours of applied music (540:xxa) may be counted toward fulfilling minimum degree requirements.

## 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:
 Music History and Musicology. 590:221 .oosoocoonomoonostoo. 2 hours One course from the following -

590:110; 590:111; 590:112; 590:114; 590:115 .aoo...oooo.. 3 hours
Specialization:
Music History and Musicology: 590:299
(research for thesis - 6 hrs .);
590:1xx (music literature -6 hrs.) $\qquad$
Electives: (maximum of 2 hrs. may be in applied music) ........... 7 hours
30 hours
Additional requirement:
Reading proficiency in either German or French

## Major in Performance

This major requires the completion of a minimum of 30-36 semester hours in the following program:

Required:
Graduate Music Core:
Music Theory: 580:210; 580:211 ..................................... 6 hours
Music History and Musicology: 590:221 ....................... 2 hours
One course from the following -
590:110; 590:111; 590:112; 590:114; 590:115 ...noso.o.o.e. 3 hours
Specialization: (Choose A or B) ...................................19-25 hours
30-36 hours

## Specialization:

## A. Wind, Percussion, Keyboard or Strings Major <br> Applied Music: 540:2xx 10 hours <br> Performance Literature and Repertory*: 595:120 ............2-4 hours <br> Music electives: primarily in the areas of music <br> theory and music literature ........................................... $5-7$ hours 19 hours <br> B. Voice Majors <br>  <br> Performance Literature and Repertory: 595:120** .............. 2 hours <br>  <br>  <br>  <br>  <br> Music Techniques: 560:145; 560:156 or 560:157 or 560:158 or 560:160. <br> Music Education and Methods: 570:130 <br> Performance Literature and Repertory: <br> 595:120; 595:130. <br> 25 hours

*Keyboard majors are required to take 595:120 sections 03 and 04 .
**595:120 section 08 is required if vocal literature has not been taken at the undergraduate level.
Additional requirements:

1. Two (2) consecutive semesters (fall/spring) of residency with fulltime status (minimum of 9 graduate hours per semester).
2. Performance recital.
3. Recital paper.
4. Two (2) successful applied jury examinations (grades A or B).
5. Major ensemble participation is required of all fulltime graduate students. Chamber Music and/or accompanying may be elected by keyboard majors; string majors will elect orchestra. A maximum of two (2) hours of ensemble credit may be counted toward minimum degree requirements. Exceptions to this requirement will be recommended by the Associate Director for Graduate Music Studies and approved by the Director of the School of Music.
6. Voice majors must:
A. Demonstrate diction proficiency (by diagnostic examination) in English, Italian, German, and French at the level of Diction II ( $560: 031$ ).
B. Have successfully completed one semester of college-level study in two (2) of the following languages: Italian, German, or French.
7. Students are required to enroll in applied music in their performance area during the semester they present their recital.

## Major in Piano Performance and Pedagogy

This major requires a minimum of 33 semester hours completed in the following program:

Required:<br>Graduate Music Core:<br>Music Theory: 580:210; 580:211 ....................................... 6 hours<br>Music History: 590:221 ..................................................... 2 hours<br>One course from the following - 590:111; 590:112;<br>590:114; 590:115..................................................... 3 hours<br>Piano Performance:<br>Applied Music: 540:246.......................................................... 6 hours<br>Music Literature: 595:120 (Piano I); 595:120<br><br>Piano Pedagogy:<br>Music Education and Methods: 570:148; 570:149;<br>570:257; 570:258; 570:260<br>10 hours<br>Electives 2 hours<br>Recommended: 530:112; 540:246; 560:130; 560:135;<br>570:250; 570:260; 570:285.<br>33 hours<br>\section*{Additional requirements:<br><br>Final Project<br><br>Options: Full solo recital/document}<br>Half solo recital and pedagogy project<br>(Pedagogy project: workshop or research paper)<br>Students are required to enroll in applied music in their performance area during the semester they present their recital.

## 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, principally in the governmental and non-profit sectors of society.

Courses in the Theory Sequence provide thorough coverage of social science theory as it has developed to analyze public policy. Courses in the Methods Sequence provide training in the 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 analysis. Continuing participation in Seminars allows discussion of current practice and development, provides a forum for on-going discussion, and includes philosophical orientation to the ethical questions which arise in policy contexts. An Internship with a public policy organization introduces the student to the professional environment and allows application of theory and methods to actual policy problems.

Admission to the program is competitive. Entering students are expected to have acquired introductory level 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 background (e.g., 920:054, 940:014, and 980:080). The MPP is available on a non-thesis option, and requires $41-45$ semester hours. A minimum of twelve (12) hours of $\mathbf{2 0 0}$-level course work is required.

## Master of Public Policy Degree/ Master of Science Degree


#### Abstract

Required:  Economics: 920:117; 920:125 ..........o.o.o.o................................6. 6 hours Public Policy: 950:205 (3 hrs.); 950:208; 950:260 ................. 9 hours Political Science: 940:153; 940:173; 940:275.......................... 9 hours  Focus area courses: as approved by advisor  Prerequisites: 940:173 and 940:275 or an approved substitute. This requirement may be waived at the discretion of the Program Director. Electives: as approved by advisor $\qquad$ 3 hours Suggested: 920:169 or 950:210.

\section*{41-45 hours}

MPP students, in consultation with their faculty advisors select a focus area and the course work needed to complete their study of public policy. They may choose either a substantive area of public policy (for example, urban policy, environmental policy, human services policy, criminal justice policy) or courses that provide them with additional training in public policy or methods of policy analysis.

In 950:208, with the support of the instructor and benefitting from interaction with other students, each student prepares a research paper within the focus area.

If focus courses have prerequisites which instructors choose not to waive, these courses will be in addition to the above degree requirements.

The internship may be undertaken during the summer following the first or second year of classes or during any other approved period.

Students must pass written and oral comprehensive examinations.


## Master of Science Degree

The following majors are offered:
Biology
Chemistry
Computer Science
Environmental Science
Environmental Technology

## Major in Biology

This major is available for students seeking an extensive research experience. 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 in the subject area of Biology are required for all students who have not completed a Biology Degree at UNI. Students will not be required to take a comprehensive examination. A thesis defense will be required.

This major is available on the thesis option only. A minimum of 30 semester hours is required, including a minimum of twenty-one (21) hours of course work and a minimum of nine (9) hours of thesis research. A minimum of fifteen (15) hours of $\mathbf{2 0 0}$-level course work is required for the thesls option.

This program is flexible and designed to allow students, working with their advisory committee, to tailor a program to fit student interests and aspirations in biology.

## Content areas:

I. 840:240 Advanced Cellular and Molecular Biology
II. 840:250 Advanced Physiology and Development
III. 840:260 Advanced Ecology
IV. 840:270 Advanced Systematics and Evolutionary Biology

Required:


## Major In Chemistry

This major is available as a thesis plan for students seeking an extensive research experience in a friendly environment featuring regular interaction with their faculty mentors. Graduates of the program are well prepared for technical positions in industrial or government laboratories or for continued study in doctoral programs in chemistry. Students interested in the program must submit a complete application, three letters of recommendation, and transcripts of undergraduate and graduate credits to the Chemistry Department.

A minimum of 30 semester credit hours, including nine (9) credit hours of thesis research 860:299, is required for this degree. A minimum of fifteen (15) hours of $\mathbf{2 0 0}$-level course work is required. Research specialization is available in the areas of analytical chemistry, biochemistry, chemical education, inorganic chemistry, organic chemistry, and physical chemistry; students generally select faculty mentors during their first semester of study. A thesis defense is required.
Required:
Science: 820:200 ..... 2 hours
Chemistry: 860:289 ..... 1 hour
Chemistry: 860:292 ..... 1 hour
Chemistry: 860:299 ..... 9 hours
Electives (including at least 9 additional hours of 200 -level course work in chemistry) 17 hours30 hours

## Combined B_A./M.S. Chemistry

The B.A./M.S. degree program is a five-year program offered on the thesis option only, leading to both the B.A. and M.S. degrees in chemistry. This program prepares students for doctoral graduate studies in chemistry and it provides training for work as a chemist in industrial and government laboratories. Students interested in this program can declare their intent by the end of the junior year, provided they have completed $860: 141$ and have an overall grade point average (GPA) of 3.00 or above. An Application for Admission to Graduate Study should be completed and the student's interest in the Combined (B.A./M.S.) Program in Chemistry indicated on the application itself.

Once admitted to the program, undergraduate students (who are classified as seniors), may register for graduate credit as a senior, with the approval of the department head (see guidelines on page 129). The student presents a signed Student Request Form (with appropriate signatures), when registering for graduate credit as a senior. The combined total of course credits, both undergraduate and graduate, may not exceed fifteen (15) hours in a semester, or eight (8) hours in a summer session. Graduate work completed on the early admission basis will be counted as graduate credit only if the student actually earns the bachelor's degree within one year from the time the student took the course and will not be counted toward the undergraduate degree. Students must meet the admission requirements of the Graduate College and the Chemistry Department upon transition from under-
graduate to graduate status at the end of the senior year. Program requirements for the M.S. are quoted above. Actual admission to graduate study and classification as a graduate student commences the semester after the student has completed the baccalaureate.

## Major in Computer Science

This M.S. program is designed to foster preparation for applied professional careers in the computing sciences. The program emphasizes concentration in a professional sub-discipline, while at the same time providing enough breadth and theory to enable the graduate to adapt to developments in the discipline as a whole. Areas of concentration currently available include artificial intelligence, computer science education, computer systems, information storage and retrieval, and software engineering.

This major is available on a thesis and non-thesis option. A minimum of 33 semester hours is required for completion of the M.S. program. Students who select the thesis option will be required to complete at least six to nine (6-9) hours of 810:299 thesis research. Students who select the non-thesis option must complete a six (6) credit-hour software development project. For both the thesis and non-thesis options, students must pass an oral examination in defense of their final project. GRE examinations are required for all applicants.

A minimum of eighteen (18) hours of $\mathbf{2 0 0}$-level (or above) course work is required and a minimum of six (6) hours must be earned in cognate courses offered by departments other than Computer Science.

Courses in the student's areas of concentration provide in-depth knowledge of a professional sub-discipline. These fifteen (15) hours consist of nine (9) hours within computer science (excluding both computer science education and research credits) and six (6) cognate hours from outside computer science. They must be approved by the Graduate Committee.

Bachelor's-level experience in computer science is suggested for program admission, but students from related disciplines who show outstanding promise are also encouraged to apply. Students without a bachelor's degree in computer science may be required to complete up to fourteen (14) hours of course work in the discipline before gaining full admission to the program.

Required:
Computer Science: 810:240; 810:270; 810:280 9 hours
Research Project: 810:299 3 or 6 hours
Thesis option ( 6 hours)
Non-thesis option (no more than 3 hours)
Concentration:
Computer Science (excluding 810:25x and 810:29x) ..0.o.s hours

Electives ......................................................................................... 0 or 3 hours
Thesis option ( 3 hours)
Non-thesis option (0 hours)
33 hours

## Major in Environmental Science/Technology

The curriculum in the Environmental Science/Technology program provides academic and research opportunities for students seeking terminal master's degrees. The curriculum emphasizes environmental related course work in the various disciplines (biology, chemistry, geology, industrial technology, and physics) as well as additional courses selected from university offerings at large to assure a high level of com-
petence in the student's area of major interest. Working in cooperation with the science and industrial technology departments, graduate students are afforded excellent opportunities for field, laboratory, and industrial research through association with a large staff of scientists studying environmental issues.

Students interested in enrolling in the program must complete an application and be admitted to the program. Applications should include three letters of recommendation and transcripts of undergraduate and graduate credits. Students wishing to pursue the Environmental Technology Emphasis must hold or be eligible to obtain a bachelor's degree in engineering or industrial technology. UNI students may enter this program at the end of the junior year under the B.A./M.S. or B.S./M.S. programs offered in biology, chemistry, geology, or physics (see below).

This program is available on the thesis option only. A minimum of 30 semester hours is required. Beyond the required courses, the graduate advisory committee for each student will select additional course work tailored to the interests and research of the student. A course in quantitative methods in environmental science requiring one year of calculus, and a course in environmental economics (i.e., $920: 123$ ) requiring a prerequisite economics course (i.e., 920:024) are generally selected. A minimum of eighteen (18) hours of 200 -level course work is required.

## Environmental Science Emphasis:

Required Courses:
Environmental Science: $830: 200 ; 830: 235 ; 830: 250$..ocomononoo.e. 9 hours
Environmental Science Seminar: 830:289 ..o......ocomonoono...o.... 3 hours


30 hours

## Environmental Technology Emphasis:

Required Courses:

Environmental Science: 830:200 or 830:235 or 830:250 .o..o. 3 hours


 30 hours

## Combined B.A./M.S. or B.S./M.S. Environmental Sclence/Technology

Students interested in the B.A./M.S. or B.S./M.S. in Environmental Science/Technology should declare their intent by the middle of the junior year. An Application for Admission to Graduate Study should be completed and the student's interest in this program indicated on the form itself.

Once admitted to the program, undergraduate students (who are classified as seniors), may register for graduate credit as a senlor, with the approval of the department head (see guidelines on page 129). The student presents a signed Student Request Form (with appropriate signatures), when registering for graduate credit as a senior. The combined total of course credits, both undergraduate and graduate, may not exceed fifteen (15) hours in a semester or eight (8) hours in a summer session. 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 course work is taken. Actual admission to graduate study and classification as a graduate student commences the semester after the student has completed the baccalaureate.

Master of Social Work Degree/ Specialist Degree/
Specialist in Education Degree

# Master of Social Work <br> Degree 

## Major in Social Work

The professional Masters of Social Work program (MSW) is a nonthesis degree designed to prepare students for the advanced practice of social work in a variety of public and non-profit settings.

Admission to the program is competitive. The full two-year degree requires a total of $\mathbf{6 0}$ credit hours. Successful applicants graduating from a Council on Social Work Education accredited undergraduate program may have up to 29 foundation core hours waived. A minimum of twelve (12) hours of $\mathbf{2 0 0}$-level course work is required for the non-thesis option.

## Admission Requirements:

1. An undergraduate degree from an accredited college or university.
2. A minimum GPA of 3.00 .
3. Students who have successfully completed a Council on Social Work Education accredited baccalaureate program in Social Work with a GPA of 3.00 in undergraduate social work classes covering the foundation are eligible for entrance into the second year. Students will be required to complete core foundation courses where deficiencies exist as determined by the Faculty Admissions Committee.
4. Applicants must comply with all policies and procedures pertaining to admission to graduate study as set forth in the University of Northern Iowa "Programs and Courses".

Required:
Foundation Core, Fall/Spring $\qquad$ 29 hours
Advanced Direct Practice Concentration or
Administrative Practice Concentration
31 hours 60 hours

For information concerning required courses for the Master of Social Work degree, contact the Department of Social Work, Sabin 30, (319) 273-7860.

## Specialist Degree

The requirements concerning program approval, graduation, scholarship, residence, examinations, and thesis are the same as for the Specialist in Education Degree (see page 167.)

## Major in Science Education

This major is available on the thesis and non-thesis options. A minimum of $\mathbf{3 0}$ semester hours of post-master's degree credit is required. The student's program must be approved by the advisory committee and the chairperson of the Science Education faculty. If no thesis was written for the Master's Degree, one must be completed for this program. No more than six (6) hours of 820:299 research credit may be included in the thirty (30) hours of post-master's credit. A minimum of twenty (20) hours of $\mathbf{2 0 0}$-level course work is required for the thesis option and non-thesis option.

Each student's program will include a minimum of thirty (30) hours of science content beyond the bachelor's degree including twelve (12) hours outside the subject area of emphasis and sixteen (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 and Science Education: 820:213; 820:290; 820:294 .... 6 houre
Science and Science Education: 820:200 ................................. 2 hourd
Other courses selected from biology, chemistry, earth science, and physics 4 hourd
Research related courses................................................................... 9 hourd
Measurement and Research: 250:180; 250:205.
(Other courses may be selected from the electives below which are marked by an asterisk*.)
Research: 820:299 .6 hourai
Internship: Teaching: 280:250 or Science and Science Education: 820:297 ........................... 3 hours 30 hours
Additional hours, if required, may be selected from these suggested electives:
Elementary, Early Childhood, and Middle Level Education: 210:141; 210:142; 210:212; 210:242; 210:254; 210:270.
Measurement and Research: 250:181*; 250:281*; 250:300*; 250:301*; 250:302*.
Social Foundations: 260:234.
Science and Science Education: 820:270.
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 major in School Psychology at the University of Northern Iow leading to the Specialist in Education Degree involves breadth of prepal ration as well as depth in a particular field of specialization.

Course work requirements for the Specialist in Education Degre are defined in terms of a three-year graduate program, including internship and work taken on the master's degree. A minimum of 68-71 semester hours beyond the bachelor's degree is required for complet ing the program.

The School Psychology major is open to students who hold a master's degree from an accredited graduate school, and who meet ther requirements set forth below.

Detailed information on the School Psychology major may be obtained from the Department of Educational Psychology and Foundations.

## Department of Educational Psychology and Foundations

## Major in School Psychology

Admission to the Ed.S. program in School Psychology requires an earned, accredited Master's degree and a prior graduate preparation equivalent to UNI's MAE: General Educational Psychology degree program with an emphasis in Context and Techniques of Assessment. Any deficiencies in the student's background will be added to the student's Ed.S. program requirements. Students with deficiencies will be notified prior to admission. GRE examinations are required for all applicants.

This major is available on the thesis option only. A minimum of 35 semester hours is required. A minimum of fifteen (15) hours of $\mathbf{2 0 0}$-level course work is required.

## Specialist in Education Degree/ Doctor of Education Degree



## Program Approval

The requirements for completion of a program of study (GF-1) are indicated on page 133.

## 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.

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 semester. Certain limitations on the amount and kinds of credit must be observed:

200-Level Credit. A student must earn at least 24 semester hours of credit in courses numbered 200 or above, counting both the master's and the post-master's work but not counting any Research credit.

1. Research Credit. The provisions regarding research credit are the same as those for the master's degree and in addition to the amount of such credit used toward the master's degree. (See page 135.) Not more than six (6) semester hours of research credit ( $x x x: 299$ ) can be included in the 30 (or more) hours of post-master's credit.
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. 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 and workshop courses are the same as those for the master's degree. (See page 135.)
Scholarship. A cumulative grade index of 3.00 ( B average) must be earned at the University of Northern Iowa in all courses attempted after receiving the master's degree. No credit toward graduation is allowed for a course in which a grade below $\mathbf{C}$ is earned.

On-Campus Residence. A student must have completed at least eighteen (18) hours in residence credit on campus, including one semester or two summer sessions of fulltime enrollment in residence after the master's degree.

## Examinations.

(a) A student must pass a comprehensive oral examination, including a defense of the thesis, if required. 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 involve six (6) semester hours of research credit (xace299). To earn this credit, a student registers for Research and usually not in one block. The instructor will assign a grade for a semester's registration in Research based upon the progress made, but may assign a Research Continued ( $R C$ ) if 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 Registrar may authorize an extension of time for the completion of Research Continued ( $R C$ ) in Research up to one additional calendar year with the consent of the instructor. If at the end of that time the work has not been completed, the grade of $R C$ will be changed to an $F$ (Failure).

Completion of the thesis project occurs when the thesis has been approved by the thesis committee and the Dean of the Graduate College.

The Dean of the Graduate College approves the appointment of 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 pages 135-136.

Licensure. The student must be eligible 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. A cumulative graduate grade point average of 3.00 or better will be required prior to recommendation for endorsement(s).

Application for Graduation. The same regulations apply as for the master's degree. See page 136.

Attendance at Commencement. The same regulations apply as for the master's degree.

## 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. GRE examinations are required for all applicants. There are three components to the program: 24 semester hours in a Professional Common Core of work in educational foundations, fundamentals, and research; 29 semester hours of Advanced Professional Study in one of three areas of intensive study and a related area; and a dissertation of 7 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 Leadership. (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.) Briefdefinitions of the three areas follow.

Counseling. This area of intensive study involves continued development of knowledge and skills of educational professionals whose career goals are to teach in counselor education preparation programs or work as practitioners in the counseling field. (For more information, contact the Head, Department of Educational Leadership, Counseling, and Postsecondary Education.)

## Doctor of Education Degree

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 Leadership. This area of intensive study involves the preparation of personnel for leadership roles in K-12 schools, postsecondary institutions, and non-school educational settings. (For more information, contact the Head, Department of Educational Leadership, Counseling, and Postsecondary Education.)

## 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.

## t. Professional Common Core

24 hours

## Education Foundations - ( 6 hours)

Interdepartmental Education: 190:301; 190:302.
Education Leadership - ( 6 hours)
Interdepartmental Education: 190:310; 190:311.
Research - ( 9 hours)
Interdepartmental Education: 190:306; 190:307
Measurement and Research: One of the following 250:270; 250:300; 250:301; 250:302.
Curriculum - ( 3 hours)
Curriculum and Instruction: 210:352.

## II. Advanced Professional Studies,

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 except as allowed by the general reguiations (page 169), and that there be a minimum of six (6) hours outside of the elected area of intensive study. The three areas of intensive study are:

Counseling
Curriculum and Instruction
Educational Leadership
III. Dissertation $\qquad$ .7 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:
Dissertation Seminar: 190:389 ( 1 hr .)
Dissertation Research: 190:399 ( 6 hrs.)

## Admission to Doctoral Study

## Initial Admission

Formal application to doctoral study should be made to the Office of the Associate Dean of the College of Education. Descriptive materials and application packets may be obtained from that 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. 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 3.50 for all prior graduate work will not usually be considered for regular admission.
3. The applicant must have a minimum of three years of professional educational experience.
4. 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.
5. Applicants for whom English is not their first language must complete the Test of English as a Foreign Language Examination (TOEFL) and check with their desired intensive study area regarding acceptable scores.
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 full 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 fifteen (15) 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 3.00 or above (on a 4.00 scale) must be maintained for all course work taken toward the Doctor of Education Degree at the University of Northern Iowa. No more than six (6) semester hours of C credit ( $\mathrm{C}+, \mathrm{C}, \mathrm{C}$-) earned within the program of study may be applied toward credit for graduation.
2. Recency of Credit. Courses taken more than seven (7) years prior to the granting of candidacy status cannot be used to meet degree requirements.
3. Transfer Credit. Usually a maximum of fifteen (15) hours of credit from regionally accredited graduate institutions may be applied toward meeting the minimum credit hour requirements for the Doctor of Education Degree (subject to the Recency of Credit regulation). Usually not more than three (3) 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 eighteen (18) semester hours of study which may be distributed across two, three or four consecutive terms. At least two residence terms and no less than twelve (12) semester hours of work must be on- campus study. Credit hour requirements must be fulfilled by enrollments in regularly scheduled classes. Independent study (e.g.r readings, practica, research) will not qualify for residence credit.
5. Maximum Academic Load. The maximum graduate load during an academic year semester is fifteen (15) hours; for the eight-week summer session, nine (9) hours is the normal maximum - a maximum of six (6) semester hours during one four-week period and three (3) semester hours during the other four-week period; or three (3), 3-semester-hour courses during an eight-week period. The maximum load during a two-week post-session is two (2) semester hours. Exceptions to these load restrictions may be granted only by the Dean of the Graduate College.
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. A minimum of 50 hours of course work at the 200 - or 300 -level must be completed. No more than ten (10) hours of credit at the 100 g 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 examination must be continuously registered until the degree is completed. Students reaching this stage will be automatically registered and assessed a fee for 190:300, 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 at least 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 (7) 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. Preview. During the semester in which the student intends to graduate, the student must make an appointment with the Graduate College for a dissertation preview to have the style and format of the dissertation reviewed. The student must have an approved program of study (GF-1) on file in the Graduate College with the members of the dissertation committee listed before a preview meeting will be scheduled. All problems may not be detected during the preview; however, the major difficulties will be discussed. Often a brief consultation will uncover format problems that are easily remedied at this stage. No dissertation will be accepted by the Graduate College for final approval without the completion of this meeting.
11.Filing of Dissertation. A dissertation is required of all candidates for the Ed.D. degree. It will involve seven (7) semester hours of credit. The first one hour will be Dissertation Seminar. Regulations governing the physical appearance (format) may be obtained from the Graduate College. The dissertation must be in final copy form before doctoral committee members may affix their signatures for approval.

The student must present three unbound copies of the dissertation in final form, either originals or photocoples, to the Graduate College no later than six weeks before graduation. Failure to meet this deadline will result in a delay in graduation. The requirements for the preparation and filing of the dissertation are set forth in the Thesis and Dissertation Manual. Copies of the manual may be obtained through the Graduate College and should be consulted prior to beginning the dissertation. Final copies submitted to the Graduate College must be on white, acid free, 24 -pound, $25 \%$ or $100 \%$ cotton paper. The student may purchase the approved paper at the print centers in the Rod Library or the Physical Plant. The Rod Library Print Center is equipped to photocopy dissertations. The final copy must be clean and suitable for microfilming, with uniform darkness and a sharp imprint.

## Doctor of Education Degree/

Doctor of Industrial Technology Degree
12.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 350 words in length. Please see the most current edition of Thesis and Dissertation Manual, for details.
13. Microfilm Agreement. A "Microfilm Agreement" and "Survey of Earned Doctorates" must be completed and returned to the Graduate College 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.
14. 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 at the time the final copy of the dissertation is deposited.
15.Application for Graduation. 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 or departmental office. Active candidates must file 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 s(he) plans to receive the degree.
16. Attendance at Commencement. The candidate for the Doctor of Education Degree is expected to secure the appropriate academic regalia and appear at commencement for the awarding of the degree.

## Doctor of Industrial Technology Degree

The University of Northern Iowa offers the Doctor of Industrial Technology Degree to meet the increasing need for advanced degree work in this field. Industrial technology is a relatively new and rapidly expanding knowledge base for a wide variety of professional fields: these include technology, trade and industrial education, technical institute education, industrial training, and technology transfer. 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 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 induex trial technology. Efforts will be made to develop in each student the intered and desire required for a leadership role in improving educational and industrial programs and determining directions for future programs. The degree program requires a minimum of 64 semester hours of credil completed beyond the master's degree.

Graduates of the Doctor of Industrial Technology Degree program will be prepared for one or more of the following professional careers:

1. Faculty, supervisors, and consultants of industrial technology, traded and industrial education, technical institute education and technology education in secondary schools, colleges and universities.
2. Researchers and project coordinators, technology transfer special ists, technology forecasters and assessors of technology for industrid al policy planning and decision making.
3. Administrators of industrial technology, technology educationy trade and industrial education, and technology education programs as directors or department heads, or as deans.
4. Researchers and research coordinators for education and industry in specific content fields of industrial technology.
5. Designers, coordinators and directors of industrial training pro-t grams, and related industrial applications.

## 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, information may be obtained from the Graduate Programs Coordinator in the Department of Industrial Technology.
Required Core Program
Industrial Technology Foundations: ..... 12 hours
Industrial Technology: 330:375; 330:376; 330:377; 330:378
Seminars: ..... 4 hours
Industrial Technology: 330:282 (4 hrs.).
(Students must enroll in a one-semester-hour seminarduring each summer session and semester while meetingresidence requirements.)
Research, Statistical Methods, and Computer
s:9 hours
Measurement and Research: 250:180
Industrial Technology: 330:292Graduate-level computer programming and/orapplications course ( 3 hrs .)
Internship: ..... 6 hours
Industrial Technology: 330:38812 hours
Industrial Technology: 330:399 ..... 30:399
Supporting Course WorkSupporting course work may be taken from any disciplinein the University as long as it relates to the career goals andcompetencies identified on the program of study and isapproved by the student's faculty advisory committee.A minimum of eight (8) semester hours of supporting coursework, beyond the required core program, must be takenoutside the Department of Industrial Technology.

## Admission to Doctoral Study

## Application for Admission

Individuals 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.

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 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 a nationally accredited institution or internationally reputable institution.
b) Each applicant must have an overall grade point average of 3.20 on all prior graduate course work.
c) The applicant must have completed the Graduate Record Examination (GRE) and have her/his scores in the verbal, analytical, and quantitative sections forwarded directly from the testing agency to the Office of the Registrar. The department will not be able to make an admission decision (degree status or provisional) until official GRE scores are on file.
d) Three references from persons familiar with the academic and professional potential of the applicant must be submitted.
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. International students should contact the International Services Office, University of Northern Iowa, for explanation of requirements.
f) Each applicant must have a minimum of three years of professionallevel educational or industrial experience in/or related to the major field of specialization. Individuals without this experience may be admitted to the program but appropriate professional experience must then be included in the program of study. What constitutes appropriate professional experience will be determined by the student's faculty advisory committee and this requirement will be included in the student's program of study.
g) All applications for admission will be reviewed by the Department of Industrial Technology Graduate Programs Committee. The committee may recommend degree status only if the candidate meets all the above requirements.

## 2. Provisional Degree Status.

a) 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. (See guidelines regarding Provisional Status on page 130.) The committee may require a personal interview with an individual before taking action on an application for admission.
b) Applicants admitted on provisional status must meet one or both of the following criteria before they may be reconsidered for degree status.

1) Completion of all deficiencies for admission to degree status have been removed.
2) Completion of nine (9) semester hours for a summer session or twelve (12) semester hours during a Spring or Fall semester with a minimum grade point average of 3.20 in course work recommended by the faculty advisor appointed by the department head. Course work completed while the individual is on provisional degree status admission may be applied toward degree requirements only if it is approved by the faculty advisory committee assigned to the student.

## Faculty Advisory Committees

After admission has been granted, a facuity 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, and two members from outside the department one of whom will be a representative of the Graduate College assigned by the Graduate Dean. Eligible committee members from within the Department of Industrial Technology will serve as chair and co-chair. The five 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. Non-faculty personnel will participate in all committee responsibilities except for signature decisions. This advisory committee shall have the responsibility for the following:

1. Approval of the application for candidacy (Professional Career Development Plan) and the Application for Program Approval or program of study (GF-1 form) for the individual student.
2. Personal interview with student after completion of the Professional Career Development Plan (PCDP).
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 departmental 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 departmental 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 Program Approval must be subsequently approved by the faculty advisory committee in order to be counted on a student's program of study.

Admission to candidacy 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 PCDP 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 course requirements after the application for program of study 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 $\mathbf{3 . 0 0}$ ( $\mathbf{B}$ average) must be earned at the University of Northern lowa 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 $\mathbf{C}$ credit ( $\mathbf{C}+$, 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, taking into consideration three (3) years for degree completion. 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, fulltime study for one academic year plus the preceding or following summer session. Fulltime 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 fulltime if they carry at least nine (9) semester hours per semester in addition to the assistantship.
5. Maximum Academic Load. The maximum graduate student load during each semester of the academic year is fifteen (15) hours, and twelve (12) hours for those with an assistantship; that permitted during the eight-week summer session is nine (9) hours and during the two-week post-session, two (2) hours.
6. Level of Courses. A minimum of 38 semester hours must be in $200-$ or 300 -level course work. All $100(\mathrm{~g})$ series courses available in the Department of Industrial Technology require activities beyond those required for undergraduate students; and some courses 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 applicationa their scores on the verbal, analytical, and quantitative sections of the Graduate Record Examination in order to be considered for degre status admission.
b. Departmental Candidacy Examination. The Departmenofl Candidacy Examination for the DIT degree program is termed the Professional Career Development Plan (PCDP). The candidate consults with the chairperson of the advisory committee in the developt ment of the Professional Career Development Plan which requireo approval by the candidate's faculty advisory committee. The PCDI includes 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. It requires both a written component and an oral interview. The PCDP must be completed early in the first or second semester or summer session in residence.
c. DIT Comprehensive Examination. 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 It is used to evaluate the candidate's mastery of the subject at or near the end of the program but prior to initiating the research activity fol 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 electiv courses in the program. The written portion will consist of three 4hour 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. The oral portion shall be opened to faculty who provided questions for the written portion.

Successful completion of both the written and oral portions of th comprehensive examination are required. The comprehensiv examination will be evaluated at a convened meeting of the facults, 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 "satisfactor" 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 satisfying 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 four of five committee members indicate a satisfactor, report on both the written and the oral portions. In case of a report of unsatisfactory on a portion of the examination, a second examination, must be administered in the next succeeding semester or summer 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 four of the five members of the faculty advisory committee. The candidate receiving 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 requirements except the disserta-
tion, and who have passed their comprehensive exam must be continuousty registered until the degree is completed. Students reaching this stage will be automatically registered and assessed a fee for 330:300, 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 at least one scholarly paper for publication in 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 (4) 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 (3) copies of the dissertation must be on white, acid free, 24 -pound (minimum weight), $25 \%$ or $100 \%$ cotton paper (erasable paper is not acceptable). The student may purchase the approved paper at the print centers in the Rod Library or the Physical Plant. The Rod Library Print Center is equipped to photocopy dissertations. The final copy must be clean and suitable for microfilming with uniform darkness and a sharp imprint. In addition, two (2) copies should be delivered to the department office.
10.Abstracts of Dissertation. Three (3) copies of an abstract of the dissertation must be filed in the Graduate College at the time of final deposit of the dissertation. Regulations for the dissertation also apply to the abstract. The abstract must not exceed 350 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 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 microfilm agreement form.
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 for 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 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 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. The instructor may assign an RC (Research Continued), if s(he) 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 her/his dissertation) should be postponed until the paper is near completion. The Registrar may authorize the extension of time for completion of an RC (Research Continued) in Research up to one additional calendar year with the consent of the instructor. If at the end of that time the work has not been completed, the RC will be changed to an $F$ (Failure). All dissertation research credit is recorded as RC (Research Continued) 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 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 obtained in the Department of Industrial Technology. 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.

## Gourses 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 $600: 111$ the " 600 " 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 " 8 " provide graduate credit, e.g., 940:149(g). In all courses of the $100(\mathrm{~g})$ series greater academic achievement, both qualitative and quantitative, is expected of those receiving graduate credit than those receiving undergraduate credit. Freshmen and sophomores may not register for $100(\mathrm{~g})$-level courses. Only in very special cases may an exception be granted by the appropriate department head.

Courses 200-299 are primarily designed for graduate students. Undergraduates seeking admission to graduate courses must secure the permission of the head of the department offering the course. Courses numbered 200 taken as an undergraduate cannot later be used for an advanced degree unless the student was eligible to earn graduate credit. See page 60.

Courses 300-399 are primarily designed for doctoral students.
Students are classified as follows:
Earned Semester Hours
Freshman .aless than 30



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, 159g, 259—Reserved for temporary courses of a special or experimental nature.

133, 133g, 233 Workshop-1-6 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, the head of the academic department granting credit, and Cooperative Education/Internship staff for placement agreement, 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/Internship staff assist in developing placements and arranging student interviews with employers and maintain contact with student and employer during the co-op/internship experience. May be repeated for a maximum of 12 hours credit. (See page 58.)

086, 186, 186g, 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 58.)
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 59.)

199 Study Tour-1-12 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 135, 167, 169 and 172.

300 Post-Comprehensive Registration

## Individual Studies Program

Courses offered in the Individual Studies Program may have a prefix of $000:$ xxx instead of a department number. These include:

192 Exploratory Seminar-1-3 hrs.
196 Interdisciplinary Readings- $1-3 \mathrm{hrs}$.
197 Undergraduate Thesis- $3-6$ hrs.
198 Individual Study Project-Hours arranged by Individual Studies Program Administrator. (See pages 9 and 95 for additional information.) <br> \section*{Alphabetical Order <br> \section*{Alphabetical Order <br> <br> 120 Accounting <br> <br> 120 Accounting <br> <br> 990 Anthropology <br> <br> 990 Anthropology <br> <br> 600 Art <br> <br> 600 Art <br> <br> 42 T Athletic Training <br> <br> 42 T Athletic Training <br> <br> 840 Biology <br> <br> 840 Biology <br> <br> 100 Business Administration, <br> <br> 100 Business Administration, <br> <br> Interdepartmental <br> <br> Interdepartmental <br> <br> 860 Chemistry <br> <br> 860 Chemistry <br> <br> 710 Chinese <br> <br> 710 Chinese <br> <br> 48_Communication Studies: <br> <br> 48_Communication Studies: <br> <br> 48C (Communication) <br> <br> 48C (Communication) <br> <br> 48E (Electronic Media) <br> <br> 48E (Electronic Media) <br> <br> 48) (Journalism) <br> <br> 48) (Journalism) <br> <br> 48P (Public Relations) <br> <br> 48P (Public Relations) <br> <br> 51_Communicative Disorders: <br> <br> 51_Communicative Disorders: <br> <br> 51A (Audiology) <br> <br> 51A (Audiology) <br> <br> 51C (Communicative Disorders) <br> <br> 51C (Communicative Disorders) <br> <br> 51 S (Speech-Language Pathology) <br> <br> 51 S (Speech-Language Pathology) <br> <br> 810 Computer Science <br> <br> 810 Computer Science <br> <br> 290 Counseling <br> <br> 290 Counseling <br> <br> 310 Design, Family and Consumer Sciences <br> <br> 310 Design, Family and Consumer Sciences <br> <br> 870 Earth Science <br> <br> 870 Earth Science <br> <br> 920 Economics <br> <br> 920 Economics <br> <br> 190 Education, Interdepertmental <br> <br> 190 Education, Interdepertmental <br> <br> 270 Educational Leadership <br> <br> 270 Educational Leadership <br> <br> 200 Educational Psychology <br> <br> 200 Educational Psychology <br> <br> 240 Educational Technology <br> <br> 240 Educational Technology <br> <br> 210 Elementary, Earty Childhood, and <br> <br> 210 Elementary, Earty Childhood, and Middle Level Education Middle Level Education <br> <br> 620 English Language and Literature <br> <br> 620 English Language and Literature <br> <br> 830 Environmental Science <br> <br> 830 Environmental Science <br> <br> 160 Finance <br> <br> 160 Finance <br> <br> 720 French <br> <br> 720 French <br> <br> 970 Geography <br> <br> 970 Geography <br> <br> 740 German <br> <br> 740 German <br> <br> 410 Health Promotion and Education <br> <br> 410 Health Promotion and Education <br> <br> 440 Health, Physical Education, and Leisure <br> <br> 440 Health, Physical Education, and Leisure Services, Interdeparmental Services, Interdeparmental <br> <br> 960 History <br> <br> 960 History <br> <br> 680 Humanities <br> <br> 680 Humanities <br> <br> 690 Humanities, Interdepartmental <br> <br> 690 Humanities, Interdepartmental <br> <br> 000 Individual Studies <br> <br> 000 Individual Studies <br> <br> 330 Industrial Technology <br> <br> 330 Industrial Technology <br> <br> 890 lowa Lakeside Labortiory <br> <br> 890 lowa Lakeside Labortiory <br> <br> 730 lapanese <br> <br> 730 lapanese <br> <br> 700 Languages <br> <br> 700 Languages <br> <br> 430 Leioure Services <br> <br> 430 Leioure Services <br> <br> 150 Management <br> <br> 150 Management <br> <br> 130 Marketing <br> <br> 130 Marketing <br> <br> 800 Mathematics <br> <br> 800 Mathematics <br> <br> 250 Measurement and Research <br> <br> 250 Measurement and Research <br> <br> 080 Military Science <br> <br> 080 Military Science <br> <br> 520 Music <br> <br> 520 Music <br> <br> 540 Music, Applied <br> <br> 540 Music, Applied <br> <br> 570 Music Education and Methods <br> <br> 570 Music Education and Methods <br> <br> 590 Music History and Musicology <br> <br> 590 Music History and Musicology <br> <br> 530 Music, Organizations and Ensembles <br> <br> 530 Music, Organizations and Ensembles <br> <br> 560 Music Techniques <br> <br> 560 Music Techniques <br> <br> 580 Music Theory <br> <br> 580 Music Theory <br> <br> 595 Performance Literature and Repertory <br> <br> 595 Performance Literature and Repertory <br> <br> 650 Philosophy <br> <br> 650 Philosophy <br> <br> 880 Phywics <br> <br> 880 Phywics <br> <br> 420 Physical Education <br> <br> 420 Physical Education <br> <br> 940 Political Science <br> <br> 940 Political Science <br> <br> 790 Portuguese <br> <br> 790 Portuguese <br> <br> 170 Postsecondary Education: Student <br> <br> 170 Postsecondary Education: Student Affairs Affairs <br> <br> 400 Psychology <br> <br> 400 Psychology <br> <br> 950 Public Policy <br> <br> 950 Public Policy <br> <br> 230 Reading and Language Arts <br> <br> 230 Reading and Language Arts <br> <br> 640 Religion <br> <br> 640 Religion <br> <br> 770 Russian <br> <br> 770 Russian <br> <br> 300 Safety Education <br> <br> 300 Safety Education <br> <br> 350 School Libriry Media Studies <br> <br> 350 School Libriry Media Studies <br> <br> 980 Sociology <br> <br> 980 Sociology <br> <br> 780 Spanish <br> <br> 780 Spanish <br> <br> 220 Special Education <br> <br> 220 Special Education <br> <br> 280 Teaching <br> <br> 280 Teaching <br> <br> 630 TESOL/Applied Linguistics <br> <br> 630 TESOL/Applied Linguistics <br> <br> 490 Theatre <br> <br> 490 Theatre <br> <br> 43T Tourism <br> <br> 43T Tourism <br> <br> 010 University, Interdisciplinary <br> <br> 010 University, Interdisciplinary <br> <br> 43Y Youth/Human Services Administration <br> <br> 43Y Youth/Human Services Administration <br> <br> Code Number Order <br> <br> Code Number Order <br> <br> 000 Individual Studies <br> <br> 000 Individual Studies <br> <br> 010 University, Interdisciplinary <br> <br> 010 University, Interdisciplinary <br> <br> 080 Military Science <br> <br> 080 Military Science <br> <br> 100 Business Administration, <br> <br> 100 Business Administration, Interdepartumental Interdepartumental <br> <br> 120 Accounting <br> <br> 120 Accounting <br> <br> 130 Marketing <br> <br> 130 Marketing <br> <br> 150 Management <br> <br> 150 Management <br> <br> 160 Finance <br> <br> 160 Finance <br> <br> 170 Postsecondary Education: Student <br> <br> 170 Postsecondary Education: Student Affairs Affairs <br> <br> 190 Education, Interdepartmental <br> <br> 190 Education, Interdepartmental <br> <br> 200 Educational Puychology <br> <br> 200 Educational Puychology <br> <br> 210 Elementary, Early Childhood, and <br> <br> 210 Elementary, Early Childhood, and Middle Level Education Middle Level Education <br> <br> 220 Special Education <br> <br> 220 Special Education <br> <br> 230 Reading and Language Arts <br> <br> 230 Reading and Language Arts <br> <br> 240 Educational Technology <br> <br> 240 Educational Technology <br> <br> 250 Meusurement and Research <br> <br> 250 Meusurement and Research <br> <br> 260 Social Foundations <br> <br> 260 Social Foundations <br> <br> 270 Educational Leadership <br> <br> 270 Educational Leadership <br> <br> 280 Teaching <br> <br> 280 Teaching <br> <br> 290 Counseling <br> <br> 290 Counseling <br> <br> 300 Safety Education <br> <br> 300 Safety Education <br> <br> 310 Design, Family and Consumer Sciences <br> <br> 310 Design, Family and Consumer Sciences <br> <br> 330 Industrial Technology <br> <br> 330 Industrial Technology <br> <br> 350 School Librery Media Studies <br> <br> 350 School Librery Media Studies <br> <br> 400 Psychology <br> <br> 400 Psychology <br> <br> 410 Health Promotion and Education <br> <br> 410 Health Promotion and Education <br> <br> 420 Physical Education <br> <br> 420 Physical Education <br> <br> 42 T Athletic Training <br> <br> 42 T Athletic Training <br> <br> 430 Leisure Services <br> <br> 430 Leisure Services <br> <br> 43T Tourism <br> <br> 43T Tourism <br> <br> $43 Y$ Youth/Human Services Administration <br> <br> $43 Y$ Youth/Human Services Administration <br> <br> 440 Health, Physical Education and Leisure <br> <br> 440 Health, Physical Education and Leisure <br> <br> Services, Interdepartmental <br> <br> Services, Interdepartmental <br> <br> 450 Social Work <br> <br> 450 Social Work <br> <br> 48_Communication Studies: <br> <br> 48_Communication Studies: <br> <br> 48C (Communication) <br> <br> 48C (Communication) <br> <br> 48E (Electronic Media) <br> <br> 48E (Electronic Media) <br> <br> 48J (Journalism) <br> <br> 48J (Journalism) <br> <br> 48P (Public Relations) <br> <br> 48P (Public Relations) <br> <br> 490 Theatre <br> <br> 490 Theatre <br> <br> 51_ Communicative Disorders: <br> <br> 51_ Communicative Disorders: <br> <br> 51A (Audiology) <br> <br> 51A (Audiology) <br> <br> 51C (Communicative Disorders) <br> <br> 51C (Communicative Disorders) <br> <br> 51 S (Speech-Language Pathology) <br> <br> 51 S (Speech-Language Pathology) <br> <br> 520 Music <br> <br> 520 Music <br> <br> 530 Music, Organizations and Ensembles <br> <br> 530 Music, Organizations and Ensembles <br> <br> 540 Music, Applied <br> <br> 540 Music, Applied <br> <br> 560 Music Techniques <br> <br> 560 Music Techniques <br> <br> 570 Music Education and Methods <br> <br> 570 Music Education and Methods <br> <br> 580 Music Theary <br> <br> 580 Music Theary <br> <br> 590 Music History and Musicology <br> <br> 590 Music History and Musicology <br> <br> 595 Performance Literature and Repertory <br> <br> 595 Performance Literature and Repertory <br> <br> 600 Art <br> <br> 600 Art <br> <br> 620 English Language and Literature <br> <br> 620 English Language and Literature <br> <br> 630 TESOL/Applied Linguistics <br> <br> 630 TESOL/Applied Linguistics <br> <br> 640 Religion <br> <br> 640 Religion <br> <br> 650 Philosophy <br> <br> 650 Philosophy <br> <br> 680 Humanities <br> <br> 680 Humanities <br> <br> 690 Humanities, Interdepartmental <br> <br> 690 Humanities, Interdepartmental <br> <br> 700 Languages <br> <br> 700 Languages <br> <br> 710 Chinese <br> <br> 710 Chinese
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720 French
730 Japanese
740 German
770 Russian
780 Spanish
790 Portuguese
800 Mathematics
810 Computer Science
820 Science and Science Education
830 Environmental Science
840 Biology
860 Chemistry
870 Earth Science
880 Physic:
890 lowa Lakeside Laboratory
900 Social Science
920 Economics
940 Political Science
950 Public Policy
960 History
970 Geography
980 Sociology
990 Anthropology

## Departmental Order

Accounting
120 Accounting
Art
600 Art
Biology
840 Biology
890 lowa Lakeaide Laboratory
Business Administration, College of. Interdepartmental
100 Business Administration, Interdepartmental
Chemistry
860 Chemistry
Communication Studies
48 C Communication
48E Electronic Media
48J Journalism
48P Public Relations
Communicative Disorders
51A Audiology
51C Communicative Disorders
51S Speech-Language Pathology
Computer Science
810 Computer Science
Curriculum and Instruction
210 Elementary, Early Childhood, and Middle Level Education
230 Reading and Language Arts
240 Educational Technology
300 Safety Education
350 School Library Media Studies
Design, Family and Consumer Sciences
310 Design, Family and Consumer Sciences
Earth Science
870 Earth Science

## Economics

920 Economics
Education, Interdepartmental
190 Education, Interdepartmental
Educational Leedership, Counseling, and Postsecondary Education
170 Postsecondary Education: Student Affairs
270 Educational Leadership
290 Counseling
Educational Psychology and Foundations
200 Educational Piychology
250 Measurement and Research
260 Social Foundations
English Language and Literature
620 English Language and Literature
630 TESOLApplied Linguistics
Finance
160 Finance

Geography
970 Geography
Health, Physical Education, and Leisure

## Services, School of

410 Health Promotion and Education
420 Phyrical Education
42 T Athletic Training
430 Leisure Services
43T Tourism
43Y Youth/Human Services Administration
440 Health, Physical Education, and Leisure Services, Interdepartmental
History
960 History
Humanities
680 Humanities
Humanities and Fine Arts, Interdepartmental
690 Humarities, Interdepartmentul
Interdisciplinary
000 Individual Studies
010 University, Interdisciplinery
Industrial Technology
330 Industrial Technology
Management
150 Management .
Marketing
130 Marketing
Mathematics
800 Mathematics
Military Science
080 Military Science
Modem Languages
700 Languages
710 Chinese
720 French
730 Japanese
740 German
770 Russian
780 Spanish
790 Portuguese
Music, School of
520 Music
530 Music, Organizstions and Ensembles
540 Muric, Applied
560 Music Techniques
570 Music Education and Methods
580 Music Theory
590 Music History and Musicology
595 Performance Literature and Repertory
Philosophy and Religion
640 Religion
650 Philosophy
Physics
880 Phynice
Political Science
940 Political Science
Pyychology
400 Psychology
Public Policy
950 Public Policy

## Science

820 Science and Science Education
830 Environmental Science
Social Science
900 Social Science
Social Work
450 Sacial Work
Soclology, Anthropology and
Cilminology
980 Sociology
990 Anthropology
Special Eduction
220 Special Education
Student Field Experiences
280 Teaching
Theatre
490 Theatre
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## 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.

A course which has been re-numbered effective Fall 1998, Fall 1999, or Fall 2000 semester (1998-2000 or 2000-2002 ${ }^{\text {* Programs and }}$ Courses") has the course's former number itallcized and llsted In parenthesis ( ) at the end of the new course number's description.

## 010 University, Interdisciplinary

010:092. 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.
XXX: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.

## 080 Military Science

## Basic Course

080:091. The American Defense Establishment: An Introduction - 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, $1 \mathrm{hr} /$ /wk.; lab, $1 \mathrm{hr} . / \mathrm{wk}$.
080:092. 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, $1 \mathrm{hr} . / \mathrm{wk}$; lab, 1 hr./wk.

## 080:094. Milltary Leadership and Problem-Solving 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 processes, military writing, and ethics in the military discussion of the Principles of War, Military History and the threat of regional conflicts. Discussion, 1 $\mathrm{hr} . / \mathrm{wk}$; lab, 1 hr ./wk, plus 1 field trip.
080:095. Milltary 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, $1 \mathrm{hr} . / \mathrm{wk} . ;$ lab, $1 \mathrm{hr} . / \mathrm{wk}$, plus 1 field trip.
080:098. Military Seience Leadership Practicum - 4-6 hrs.
A five-week summer program at Fort Knox, Kentucky, designed to provide leadership experiences to sophomores. Successful completion will qualify students to enroll in the ROTC Advanced Course. Prerequisite: departmental approval.

## Advanced Course

080:116. 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, $1 \mathrm{hr} . / \mathrm{wk}$. Prerequisite: departmental approval.
080:117. Principles of Military Operations - $\mathbf{3}$ 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 $3 \mathrm{hrs} . / \mathrm{wk}$.; lab, 1 hr./wk. Prerequisite: departmental approval.

## 080:118. Military Command and Management - 3 hrs .

Leadership and management of large organizations with emphasis on effective staff management of resources and organizational behavior problems; includes personnel management, training management and logistics management; oral presentation and research paper required. Discussion, $3 \mathrm{hrs} . / \mathrm{wk} ; \mathrm{lab}, 1 \mathrm{hr} . / \mathrm{wk}$. Prerequisite: departmental approval.
080:119. Military Leadership Development - 3 hrs.
A comprehensive review of professional leadership development principles with a heavy emphasis on ethics of the military profession; case studies of applied leadership techniques and lectures addressing problem analysis, the decision-
making process, communications, counseling, motivation and team building| broad review of military law, the military justice system and the Law of Land Warfare; oral presentation and research paper required. Discussion $3 \mathrm{hrs} . /$ wk. lab, $1 \mathrm{hr} . / \mathrm{wk}$. Prerequisite: departmental approval.
080:189. Readings in Contemporary Military lssues $-1-6$ hrs.
Individualized list of selected readings in an area of emphasis. Prerequisited departmental approval.

## 080:192. Leadership Practicum - $4-6$ hrs.

A five-week summer program at Fort Lewis, Washington, designed to provide, leadership development and opportunities for students participating in the Advanced Course. Prerequisite: departmental approval.

## 120 Accounting

No Accounting courses may be taken on a credit/no credit basis by an Accounting Major, except 120:169, 120:170, and 120:179.

## 120:030. Principles of Financial Accounting - 3 hrs.

Introduction to reporting financial information regarding the operating investing and financing activities of business enterprises to present and potential investors and creditors and others. Regression note: Subsequent to successfully completing a 100-level Accounting course, neither 120:030 nor 120:031 may be repeated. Prerequisite: registration requires a cumulative UNI GPA of 2.20 or better, or the equivalent; sophomore standing.
120:031. Principles of Managerial Accounting - 3 hrs.
Introduction to processes leading to information useful to decision-makers responsible for an accounting entity's activities. Includes cash flow and financial statement analyais, cost behavior, and budgeting. Regression note: Subsequent to successfully/ completing a 100-level Accounting course, neither 120:030 nor 120:031 may be repeated. Prerequisites: C - or better in 120:030; sophomore standing.
120:129. Intermediate Accounting 1-3 hrs.
Review of the accounting cycle and presentfuture value concepts and the study of the theory and practice of financial accounting for assets and related items. Prerequisites: 120:030; 120:031; junior standing.
120:130. Intermediate Accounting II - 3 hrs.
Study of the theory and practice of accounting for liabilities and owner's equity, revenue recognition, accounting changes and error corrections, and statements of cash flow. Prerequisites: 120:030; 120:031; 120:129; junior standing.
120:131. Cost Accounting - 3 hrs.
Management use of accounting data to aid in product costing, performance measurement, budgeting, and other operating decisions. Prerequisites: 120:030; 120:031; junior standing.
120:132. Income Tax - 3 hrs.
Federal taxes as applied to individuals and businesses; emphasis on individual returns, income and expense recognition, and property transactions. Prerequisite: junior standing.
120:134. Auditing - 3 hrs.
Principles, practices, and procedures used to determine reliability of financial records and statements. Prerequisites: $120: 030 ; 120: 031 ; 120: 129 ; 120: 130$; junior standing.
120:135(g). Advanced Accounting - 3 hrs.
Accounting for partnerships, foreign currency translation, consolidations, and governmental and not-for-profit units. Prerequisites: 120:030; 120:031; 120:129; 120:130; junior standing.

## 120:136. 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: 120:030; 120:031; 120:129; 150:080; junior standing.
120:139(g). Government and Not-for-Profit Accounting - 3 hrs.
Introduction to governmental and not-for-profit accounting, financial reporting, and managerial control concepts, processes, and procedures. Prerequisites: 120:030; 120:031; junior standing.

## 120:141(g). Advanced Cost Accounting - 3 hrs.

Continuation of $120: 131$. Emphasis on cost techniques necessary for management decision making. Prerequisites: 120:030; 120:031; a C- or better in 120:131; junior standing.
120:142. 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. Prerequisites: 120:132; junior standing.

120:144. VITA: Individual Income Tax Preparation - $1 \mathbf{h r}$.
VITA, an acronym for Volunteer Income Tax Assistance, is a nationwide program sponsored by the Internal Revenue Service. VITA volunteers prepare federal and state income tax returns, at no charge, for primarily low-income individuals. The course is designed to give students an experiential learning opportunity. May be repeated for a maximum of 3 hours. Prerequisite: 120:132.
120:148. 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. Prerequisites: 120:030; 120:031; 120:129; 120:130; 120:134; junior standing.

## 120:150. Auditing Review - 1 hr .

Intensive review of auditing concepts to prepare accounting students for the Auditing section of the CPA examination. Prerequisites: 120:030; 120:031; 120:129; 120:130; 120:134; junior standing.

## 120:169. Internship - Accounting - 2-8 hrs.

Fulltime accounting internship for minimum of eight weeks. Offered on credit/no credit basis only. Prerequisites: junior standing; consent of department head; 2.70 cumulative UNI GPA.
120:170(g). Special Problems - Accounting - 1-3 hrs,
Directed readings, reports, and/or projects. Offered on credit/no credit basis only. Prerequisites: junior standing; consent of department head.
120:179. Cooperative Education in Accounting - 1-3 hrs.
Offered on credit/no credit basis only. May be repeated for a maximum of 6 hours.

## 120:214. Applied Professional Research - 3 hrs.

Emphasizes substantive accounting and auditing questions that arise in practice. Professional research methods will be used to solve cases. Teamwork, communication and analytical skills required of contemporary practitioners will be developed. Prerequisites: 120:134; admission to MAcc program.
120:229. Financial Accounting Theory - 3 hrs.
Examination of the conceptual underpinnings of accounting and the development of those concepts and the discussion of accounting issues as related to contemporary financial reporting. Prerequisite: admission to the MAcc Program.
120:236. Advanced Accounting Systems - 3 hrs.
This course builds upon the background provided by the Computerized Accounting Systems course and the Introduction to MIS course. It develops an integrating framework to illustrate the evolving role of current and emerging information technologies in supporting accounting and business activities. Prerequisites: 120:136; 150:080; admission to the MAcc Program.

## 120:240. Advanced Auditing - 3 hrs.

Examination of selected professional issues that will be confronted in practice. Specific topical coverage will vary as contemporary issues emerge. Prerequisites: 120:134; admission to the MAcc Program. (Formerly 120:140g.)

## 120:242. Advanced Tax Topics - 3 hrs.

Advanced issues related to income taxation of corporations, partnerships, S corporations and fiduciaries, and estate and gift taxes are covered. Emphasis is on conceptual understanding and problem sotving. Prerequisites: 120:132; admission to the MAcc Program.

## 120:243. Tax Research and Planning - 3 hrs.

Study and application of the research methodologies related to tax compliance and tax planning work commonly performed by accountants. Prerequisites: 120:132; admission to the MAcc Program. (Formerly 120:143g.)
120:262. Managerial Accounting - 3 hrs.
Use of accounting data in managerial decision-making process and in the analysis and control of business operation. Prerequisites: 120:030 and 120:031, or equivalent; and consent of MBA Director.

## 120:263. Cost Management - 3 hrs.

Study of the development and implementation of cost management systems that support operations in "World Class" manufacturing, service, and other organizations. Includes activity-based costing, costs of quality, strategic control systems, and management control systems. Prerequisites: 120:131; admission to the MAcc Program.

## 120:280. Topics in Accounting - 1-3 hrs.

May be repeated for a maximum of 6 hours. Anticipated typical credit of 1 hour. Selected topics in Accounting. Prerequisite: consent of MBA Director.
120:285. Individual Readings $-1-4 \mathrm{hrs}$.
Directed readings and reports. May be repeated for a maximum of 4 hours. Prerequisites: consent of MBA Director and department head.

120:289. Seminar in Contemporary Issues in Accounting - 3 hrs .
Seminar on topics offered on a rotating basis. Offerings include contemporary issues in auditing, tax planning, international tax and accounting, and accounting theory. Course may be repeated for additional credit one time. Prerequisite: consent of MBA Director or admission to the MAcc Program.
120:299. Research - 1-6 hrs.
Prerequisites: consent of MBA Director and department head.

## 130 Marketing

130:060. Tourism Marketing - 3 hrs.
Survey course examining tourism in a marketing context with special emphasis on the Principles of Marketing in a service industry.
130:101. Principles of Marketing - 3 hrs.
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. Prerequisite: 920:024 or 920:053.
130:106(g). Consumer Behavior - 3 hrs .
Recent findings of psychologists, sociologists, anthropologists, and marketers in relationship to internal and external influences on buyer behavior and market-ing-related decision making. Prerequisites: 130:101; 920:024 or 920:053; junior standing.

## 130:108(g). Marketing Research - 3 hrs .

Procedures used in defining a marketing problem and carrying out the research necessary for its proper solution. Prerequisites: 130:101; 150:080; 800:072 or 800:092; 920:020; 920:024 or 920:053; 920:070; junior standing.

## 130:131. New Product Management - 3 hrs.

The "Product" marketing mix element is studied, with focus on new product development, from idea generation through commercialization. Prerequisites: 130:101; 920:024 or 920:053; junior standing.

## 130:142. Pricing - 3 hrs.

Price, as one of the major components of marketing, is studied from economic, psychological, and sociological perspectives. Prerequisites: 130:101; 920:024 or 920:053; junior standing.

## 130:150. Advertising and Promotion - 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: 130:101; 920:024 or 920:053; junior standing.

## 130:153. Sales Management -3 hrs .

Study of the sales management functions from a decision-making perspective by developing field management tools and procedures related to organizing, staffing and training a sales force, directing sales force operations, sales planning, and the evaluation of sales performance. Prerequisites: 130:101; 920:024 or 920:053; junior standing.
130:161. Distribution - 3 hrs.
Study of the behavioral dimensions of marketing channel relations, the roles of channel members, their use of power, the management of conflicts that arise, the communications network and the logistics of the organized movement of products. Prerequisites: 130:101; 920:024 or 920:053; junior standing.

## 130:166. Retalling - 3 hrs.

Study of the elements of and decisions to be made in owning or managing a retail business, the selection of a target market and information-gathering methods, location planning, merchandise management, and communicating with customers. Prerequisites: 130:101; 920:024 or 920:053; junior standing.

## 130:169. Internship-Marketing - 2-8 hrs.

Fulltime internship in a marketing-related business for a minimum of eight weeks. Maximum of three semester hours may be applied to Marketing major electives category. Prerequisites: 130:101; 130:106; 130:108; 150:080; 800:072 or 800:092; 920:020; 920:024 or 920:053; 920:070; senior standing; consent of department head; UNI cumulative GPA of 2.50 or better.

## 130:170. Entrepreneurship - 3 hrs.

Exploration of entrepreneurial qualities, opportunity assessment, strategic planning of new ventures and legal and contemporary environmental issues. Not for students with majors in Accounting, Business Teaching, Economics-Emphasis 3, Finance, Management, Management Information Systems, or Marketing. No credit if credit previously earned in 130:172. Prerequisites: 920:024 or both 920:053 and 920:054; junior standing.

130:172. Venture Opportunity Analysis - 3 hrs.
Examination of skills and procedures needed to plan and create a new venture. Emphasis on self-assessment, first venture analysis, and creation of comprehensive business plan. Only for students majoring in Accounting, Business Teaching, Economics-Emphasis 3, Pinance, Management, Management Information Systems, or Marketing. No credit if credit previously earned in 130:170. Prerequisites: 120:030; 120:031; 130:101; 150:153; 920:053; 920:054; junior standing.
130:177. Global Marketing - 3 hrs.
Marketing practices and trends in businesses serving foreign markets. Prerequisites: 130:101; 920:024 or 920:053; junior standing.
130:178. Services Marketing - 3 hrs.
Seeks to develop an understanding of service as a product or component of a product. Provides an opportunity to gain an appreciation for the unique challenges inherent in marketing and managing services, and service products. Topics include service design and delivery, service quality and standards, and the roles played by both service provider and customer. Prerequisites: 130:101; 920:024 or 920:053; junior standing.

## 130:179. Cooperative Education in Marketing - 1-6 hrs.

Offered on credit/no-credit basis only. This course is not accepted for credit toward the Marketing major, but can be used as a university elective. Prerequisites: 130:101; 920:024 or 920:053; UNI cumulative GPA of $\mathbf{2 . 5 0}$ or better; consent of department head.

## 130:182. Applied 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: 130:101; 130:108; 150:080; 800:072 or 800:092; 920:020; 920:024 or 920:053; 920:070; junior standing. 130:187. Direct Marketing - 3 hrs.
Introduction to direct marketing with data base applications. Prerequisites: 130:101; $920: 024$ or $920: 053$; junior standing.
130:191(g). Marketing Strategy - 3 hrs.
Integration of major marketing functions from a managerial perspective. Emphasis on developing marketing strategies and applying strategic marketing decisions. Prerequisites: 130:101; 130:106; 130:108; 150:080; 800:072 or 800:092; 920:020; 920:024 or 920:053; 920:070; senior standing.
130:198. Independent Study - 1-6 hrs.
This course is not accepted for credit toward the Marketing major, but can be used as a university elective. Prerequisites: 130:101; 920:024 or 920:053; junior standing; consent of department head.
130:263. 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. Prerequisite: consent of MBA Director.
130:280. Topics in Marketing - 1-3 hrs.
May be repeated for maximum of 6 hours. Anticipated typical credit of 1 hour. Selected topics in Marketing. Prerequisite: consent of MBA Director.
130:285. Individual Readings $-1-3 \mathrm{hrs}$.
May be repeated for a maximum of 4 hours. Prerequisites: consent of department head and MBA Director.
130:297. Practicum - 1-3 hrs.
Prerequisites: consent of department head and MBA Director.
130:299. Research - 1-6 hrs.
Prerequisites: consent of department head and MBA Director.

## 150 Management

150:032. Structured Business Programming Concepts -3 hrs.
Study of structured programming concepts and a structured programming language. Students will design and document an advanced business application using a major structured programming language. Prerequisites: 150:080; consent of instructor.
150:034. Business Programming - 3 hrs.
Study of a major business-oriented programming language, including language commands, syntax, and structure. Various applications of the language are introduced as solutions to specific business problems through programming exercises and assignments. MIS majors may take this course in place of 810:034. No credit for students earning credit in 810:034. Prerequisites: 150:080; one of the following - 150:032, 810:030, 810:032, 810:035, 810:036, or 810:051.

150:046. Keyboarding - 1 hr.
Beginning course for students with little or no keyboarding instruction Develops keyboarding skills required for efficient computer operation. Offered on credit/no credit basis only.
150:047. Keyboarding Applications - 1 hr.
Continued development of keyboarding skills and introduction to formatting skills. Offered on credit/no credit basis only. Prerequisite: 150:046 or equivalent
150:075. Microcomputer Applications for Business - 3 hrs.
Application and integration of microcomputer software (word processing/date/ base/spread sheets/data communications/operating systems) and their relation: ship to business. Prerequisites: 150:080; keyboarding experience required.
150:080. Introduction to information Systems - 3 hrs.
Introduction to management information systems. Includes an introduction to hardware and data communication technology, software and data management| and business applications of the technology.
150:100. Legal and Social Environment of Business - 3 hrs .
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. Prerequisite: junior standing.
150:101. Business Law I- 3 hrs.
Study of the common law of contracts and Article II of the Uniform Commerciall Code. Prerequisite: junior standing.
150:102. Business Law II - 2 hrs.
Commercial paper, secured transactions, bankruptcy, partnerships, and corporations. Prerequisite: junior standing.
150:104. 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: $120: 030 ; 120: 031 ; 120: 129 ; 120: 130$; 120:134: 150:101; $150: 102$; junior standing.

## 150:105(g). Employment and Labor Lav - 3 hrs.

Legal and practical examination of employee selection, dismissal, discrimination, health and safety, labor relations and associated human resource management issues. Prerequisites: 150:100 or 150:101 or equivalent; junior standing.
150:112. Systams Analysis and Design - 3 hrs.
Introduction to the systems development life cycle with emphasis on the structured tools and techniques for systems design and presentation of design specifications. Prerequisites: 150:032; junior standing.
150:1 13. Business Communications 1 - 3 hrs.
Basic written communication development through emphasis on writing skills used in business reports, memorandums and letters; will incorporate communication theory. Prerequisites: 620:005 or 620:015; junior standing.
$150: 114(\mathrm{~g})$. 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: 150:113; 620:005 or 620:015; junior standing.
150:116(g). Human Resource Development - 3 hrs.
Focus on the strategic, administrative aspects of human resource development (HRD). HRD processes and programs, including skills and technical programs, are used to provide an applied perspective. Prerequisite: junior standing.
150:117. Field Experience in Business Teaching - 1 hr .
Field experience for those seeking licensure to teach Business Education at the secondary and post-secondary level. Will include cooperative work in keyboarding at the elementary level and a second experience at the middle school level. Offered on credit/no credit basis only. Prerequisites: 200:017; 200:030; 200:128; 200:148; 250:150 (Level Il of Professional Education Sequence); junior standing. Corequisite: 150:191.
150:119(g). Leadership and Human Relations - 3 hrs .
Study of leadership theories and practices for the purpose of developing human resources within organizations. Provides an opportunity to develop human relations skills. Prerequisite: junior standing.

## 150:120. Database Management and Theory - 3 hrs.

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: 150:032; 150:080; 150:034 or 810:034; junior standing. Prerequisite or corequisite: 150:112.
150:125. Information Systems Development - 3 hrs.
Continuing study of the systems development life cycle with emphasis on the phases of detail specification, programming, testing, training, conversion and evaluation through an actual systems development project. Problems associated with managing the development of large business applications are also studied.

Prerequisites: $150: 032 ; 150: 034$ or $810: 034 ; 150: 080 ; 150: 112 ; 150: 120 ;$ junior standing; consent of instructor.

## 150:127. Decision Systems - 3 hrs.

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: 150:032; $150: 034$ or $810: 034 ; 150: 080 ; 150: 112 ; 150: 120 ; 150: 153$; junior standing.

## 150:128. Advanced Business Programming Methods - 3 hrs.

Study of advanced business programming methods, including object-oriented languages, artificial intelligence languages, and advanced software development environments. Students will complete a major programming project. MIS majors who have taken or will take both $810: 051$ and $810: 161$ cannot receive credit for Advanced Business Programming Methods. Prerequisites: 150:032; 150:034 or $810: 034 ; 150: 080$; junior standing.
150:130(g). Training: Design and Delivery - 3 hrs.
Focus on the tactical design and delivery aspects of human resource development programs using skills and technical training programs to provide an applied perspective. Prerequisite: junior standing.
150:140. 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: $150: 032,150: 034$ or $810: 034,150: 080,150: 112,150: 120$, or consent of instructor; junior standing.
150:145. 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. May not be taken for credit by MIS majors. Prerequisites: 150:080 or equivalent; junior standing.
150:147. Information Center Operations - 1 hr.
Exploration of information center services, information center management and user support issues. Practical experience and development of skills in an information center environment providing hardware and software support services to other students and faculty. May be repeated for a maximum of 3 hours. Prerequisites: 150:080; two of the following - $150: 032$ or $810: 032$; 150:034 or 810:034; 810:051; 810:052; junior standing consent of instructor.
150:153. Organizational Management - 3 hrs.
Study of contemporary organizational concepts and issues and their practical implications for managerial behavior. Prerequisite: 2.20 cumulative UNI GPA or higher, or the equivalent; junior standing.

## 150:154. 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: 120:030; 120:031; 150:080; 800:072 or $800: 092$ or equivalent; 920:020; 920:070; junior standing.

## 150:161. Supply Chain and Purchasing - 3 hrs.

Examination of the integrative management process of purchasing, producing supplying, and distributing goods and services. Prerequisites: 120:030; 120:031; $150: 080 ; 150: 153 ; 150: 154 ; 800: 072$ or $800: 092 ; 920: 020 ; 920: 053 ; 920: 054$; 920:070; junior standing.

## 150:163. Managerial Problem Solving - 3 hrs.

Effective thinking about organizational problems. Topics include critical thinking; problem identification, definition, and analysis; alternative generation and evaluation; negotiation; and design. Prerequisites: 150:153; junior standing.

## 150:164. Quallty Management - 3 hrs.

Management of quality in manufacturing and service operations. Topics include: quality management philosophies, costs of quality, TQM, statistical process control, vendor relations, acceptance sampling, reliability, service quality, and organizational issues affecting quality. Prerequisites: 120:030; 120:031; $150: 080 ; 150: 153 ; 150: 154 ; 800: 072$ or $800: 092$ or equivalent; $920: 020 ; 920 ; 070$; junior standing.
150:165(g). Organitational Behavior - 3 hrs.
Examination of micro and macro issues found within an organization which would include people, technology, environment, and structure. Prerequisites: 150:153; 800:072 or $800: 092$ or equivalent; $920: 070$; junior standing. 150:166(g). Staffing - 3 hrs.
Study and application of basic staffing practices and the processes of acquiring,
orienting, evaluating, and terminating employees. Prerequisites: 150:153; junior standing.

## 150:167(g). Strategic Supply Management - 3 hrs.

Discussion of emerging issues in developing a supply chain and operations strategy for competitive success. The roles of technology, quality, and integrative logistics, in particular, are studied in the context of globalization of markets and procurement. Prerequisites: $120: 030 ; 120: 031 ; 130: 101 ; 150: 080 ; 150: 153$; $150: 154 ; 800: 072$ or $800: 092$ or equivalent; $920: 020 ; 920: 053 ; 920: 054 ; 920: 070$; junior standing. Prerequisites or corequisites: $130: 161 ; 150: 161 ; 150: 164$.
$150: 168(g)$. Compensation and Benefits - 3 hrs.
Examination of the total compensation system including wage determination, salary structures, group rewards, and benefits. Prerequisites: 150:153; junior standing. Prerequisite or corequisite: 150:166.

## 150:169(g). Management internship - 1.3 hrs .

Uncompensated work experience in conjunction with an academic project conducted under faculty guidance. May be repeated for a maximum of 6 hours. Offered on credit/no credit basis only. Prerequisites: 2.70 cumulative UNI GPA; junior standing; consent of department head.

## 150:170. Special Problems - $\mathbf{1 - 3}$ hrs.

Credit determined at registration. Student will choose one of the following areas:

1. Management
2. Law
3. Business Teaching
4. International Business
5. Management Information Syatems

May be repeated for a total of 6 hours. Prerequisite: junior standing; consent of instructor.
150:175. Business Pollcy and Strategy - 3 hrs.
Study of strategy formulation and implementation processes. Focus on the application of integrative approaches to management through case analysis. For senior business majors. Prerequisites: completion of all other courses in the "business core"; $120: 030 ; 120: 031 ; 130: 101 ; 150: 080 ; 150: 100 ; 150: 153 ; 150: 154 ;$ $160: 151 ; 800: 072$ or $800: 092 ; 920: 020 ; 920: 053 ; 920: 054 ; 920: 070$; senior standing. 150:179. Cooperative Education - 1-3 hrs.
Compensated work experience in conjunction with an academic project conducted under faculty guidance. For majors only. May be repeated for a maximum of 6 hours. Offered on credit/no credit besis only. Prerequisite: consent of department head.

## 150:187. Organizational Design and Development - 3 hrs.

Application of concepts presented in $150: 153$ and $150: 165$. Seminar and fieldbased experience in designing solutions to organirational design and development problems. Prerequisites: $150: 153 ; 150: 163 ; 150: 165 ; 800: 072$ or $800: 092$ or equivalent; 920:070; junior standing.
150:189. Seminar in Intermational Business - 3 hrs.
Problems of organizing, financing, and operating multinational enterprises, and the impact of multinational business upon a world economy. Prerequisites: $130: 101 ; 150: 153 ; 920: 024$ or $920: 053$; junior standing.
150:190. 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. Prerequisites: 150:112; MIS majors; junior standing.
150:191. Curriculum and Methods for Business Education - 3 hrs.
Curriculum development, motivation, specific presentation methods, and evaluation as applied to business programs. Prerequisites: 200:017; 200:030; 200:128; 200:148; 250:150 (Level Il of the Professional Education Sequence); junior standing. Corequisite: $150: 117$.
150:249. Manzgement Information Systems Concepts -3 hrs.
Provides 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 MBA Director.
150:250. Strategic Panning and Organization Analyais - 3 hrs.
Analysis of business organization, its environment, and the strategic planning function. Should be taken in the first semester of study. Prerequisite: consent of MBA Director.
150:262. Leadership and Organizational Behavior - 3 hrs.
Study of contemporary leadership and its impact upon micro and macro organizational issues. Prerequisites: $150: 153$ or equivalent; consent of MBA Director.

150:265. Managerial Statistics - 3 hrs.
Provides students with knowledge of data analysis techniques and research methodology. Emphasis on decision making under uncertainty, sampling, probability distribution, and regression. Prerequisite: consent of MBA Director.
150:266. Quantitative Decision Making -3 hrs.
Theory and applications of decision analysis and management science methodologies. Emphasis on application to management decision making. Prerequisites: 150:265; consent of MBA Director.
150:267. Operations Management - 3 hrs.
Introduction to analysis, design, and management of systems. Prerequisites: 150:265; consent of MBA Director.
150:272. Cross-Functional Operations - 3 hrs .
Analyzis and design of business operational decisions in complex production and service environments. Prerequisite: consent of MBA Director.
150:274. Statistical and Quantitative Analysls - 3 hrs.
Theory and application of management acience techniques, statistical methods, data analysis, and research methodology for management decision making. Prerequisite: consent of MBA Director.
150:276. Business Capstone Experience - 1 hr .
Students will learn to analyze, solve, and present a solution to a complex, interdisciplinary business problem. Prerequisite: consent of MBA Director.
150:280. Topics in Management - 1-3 hrs.
May be repeated for maximum of 6 hours. Anticipated typical credit of 1 hour. Selected topics in Management. Prerequisite: consent of MBA Director.
150:285. Individual Readings $-1-3$ hrs.
Directed readings and reports. May be repeated for a maximum of 4 hours. Prerequisite: consent of MBA Director.
150:289. Seminar in Business Pollicy - 3 hrs.
Should be taken in student's last semester of MBA atudy. Prerequisite: consent of MBA Director.
150:297. Practicum - 2 hrs.
Prerequisite: consent of MBA Director.
150:299. Research - 1-6 hrs.
Prerequisite: consent of MBA Director.

## 160 Finance

160:055. Personal Financial Planning and Ásset Management - 3 hrs .
Overview of the fundamentals of financial planning and asset allocations with an emphasis on diversification of risk.
160:140. Principles of Real Estate - 3 hrs .
Introduction to nature of real estate, its investment value, and related decision analysiss includes appraisal, investment analysis, location theory, financing, legal characteristics, and development. Not intended as pre-license course for sales personnel. Prerequisite: junior standing.
160:141. 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. Prerequisites: 120:030; 120:031; 160:151; 800:072 or 800:092; 920:053; 920:054; 920:070; junior standing.
160:142. 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. Prerequisites: 160:140; junior standing.
160:143. Real Estate Law and Brokerage - 3 hrs.
Study of the law affecting real estate value, financing, conveyance, contractual obligations, and brokerage, including agency relationships. Prerequisites: $160: 140$; junior standing.
160:150(g). Commercial Bank Management - 3 hrs.
Study of major decisions and policies involved in the management of commercial banks in the context of asset/liability management. Prerequisites: 120:030; 120:031; 160:151; 800:072 or 800:092; 920:053; 920:054; 920:070; junior standing. 160:151(g). Corporation Finance - 3 hrs.
Introductory course in corporation finance relating to the role of the finance function with the corporate enterprise. Graduate students completing this course will be required to complete a graded, written case covering financial management and capital budgeting. Prerequisites: 120:030; 120:031; 800:072 or 800:092; 920:053; 920:054; 920:070; junior standing. Mathematics majors who have successfully completed 800:060 and 800:061 may enroll with the consent of department head.

160:152(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. Prerequisites: 120:030; 120:031; 160:151; 800:072 or 800:092; 920:053; 920:054; 920:070; junior standing.

## 160:154. 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. Prerequisites: 120:030; 120:031; 160;151; 800:072 or 800:092; 920:053; 920:054; 920:070; junior standing.

## 160:155. Advanced Financial Management - 3 hrs.

In-depth examination of the tools, concepts, and theories of financial management. Topics include working capital management, capital budgeting, financial theory, and various appropriate analytical tools. Prerequisites: 120:030; 120:031; C- or better in 160:151; 160:161; 800:072 or 800:092; 920:053; 920:054; 920:070; junior standing.
160:156. Toples in Financial Management - 3 hrs.
Examination of various aspects of financial management through discussions of specific topics. Course, but not specific section, may be repeated. Prerequisites: 120:030; 120:031; 800:072 or 800:092; 920:053; 920:054; 920:070; junior standing: plus the following prerequisites for the particular section.

Sec. 1: Advanced Cases. Prerequisites: C- or better in 160:151; 160:155.
Sec. 2: Security Analysis. Prerequisites: 160:151; 160:152.
Sec. 3: Options/Futures. Prerequisites: 160:151; 160:152.
Sec. 4: Working Capital. Prerequisites: C- or better in $160: 151 ; 160: 155$.

## 160:158(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 analywis, working capital management, and international taration. A case study approach is used. Prerequisites: 120:030; 120:031; 160:151; 800:072 or 800:092; 920:053; 920:054; 920:070; junior standing.

## 160:161. Intermediate Financial Management - 3 hrs.

Examination of the tools, concepts, and theories of financial management. Topics covered include working capital management, capital budgeting, financial theory, and financial modeling. Prerequisites: 120:030; 120:031; C- or better in 160:151; 800:072 or 800:092; 920:053; 920:054; 920:070; junior standing.

## 160:162. Risk Management and Insurance - 3 hrs.

Fundamentals of risk and of insurance as they apply to financial management. Prerequisite: junior standing.

## 160:163. Insurance Company Operations - $\mathbf{3}$ hrs.

In-depth study of management issues unique to insurance operations and companies from a functional perspective. Prerequisites: 120:030; 120:031; 160:151; 800:072 or 800:092; 920:053; 920:054; 920:070; junior standing.
160:170. Special Problems - 1-3 hrs.
Credit determined at registration. Prerequisites: junior standing; consent of department head.
160:179. Cooperative Education in Finance - 1-3 hrs.
Compensated work experience in conjunction with an academic project conducted under faculty guidance. Offered on credit/no credit basis only. Prerequisites: 3.00 cumulative UNI GPA; consent of department head.

## $160: 263$. Financial Management - 3 hrs.

Concepts of financial management for the student having a basic background in corporate finance; emphasizes a theoretical approach to complex problems (capital acquisition, analysis of capital projects, and financial analysis). Prerequisites: B or better in 160:151; consent of MBA Director.
160:264. 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 Director.
160:266. Financial Management and Markets -3 hrs.
In-depth examination of the tools, concepts, theories, and analysis of managerial finance integrated with case applications. Students will be expected to apply concepts from managerial finance in analyzing, presenting, and discussing cases at an advanced level. Prerequisites: 160:151 or equivalent; consent of MBA Director.

## 160:280. Toplcs in Finance $-1-3 \mathrm{hrs}$.

In-depth examination of various aspects of financial management through discussions of specific topics in finance. Integration of financial theory and case analysis to advanced finance topics. May be repeated for maximum of 6 hours. Anticipated typical credit of 1 hour. Prerequisite: consent of MBA Director.

160:285. Individual Readings - 1-3 hrs.
Directed readings and reports. Prerequisite: consent of MBA Director.
160:297. Practicum - 2 hrs.
Prerequisite: consent of MBA Director.
160:299. Research - 1-6 hrs.
Prerequisite: consent of MBA Director.

## 170 Postsecondary Education: Student Affairs

## 170:050. Career Decision Making - 2 hrs.

Introduction to a structured career decision-making process, including selfawareness, career and educational information, computerized and internet assistance and resources, and related activities/projects.

## 170:055. Strategies for Academic Success - 2 hrs.

Provides development and use of effective learning and study strategies/skills necessary for independent learning and academic success. University policies, procedures, and services will also be addressed.
170:218. Organization and Governance of Postzecondary Education - 3 hrs.
Introduction to the organization and administration of institutions that conduct postsecondary education including two- and four-year colleges and universities. Emphasis on organizational theory and behavior and use of case studies to illuminate the multifaceted mission and operation of these organizations.
170:222. Communication and Leadership in Posteecondary Education -
3 hrs.
Broad overview of communication, counseling and advising theory and their application to leadership in the postsecondary setting. Emphasis is on developing individual communication skills for the various professional roles found in postsecondary education. Prerequisite: graduate standing.
170:230. Postecondary Curriculum and Assessment - 3 hrs .
A study of relationships between key elements of academic planning and student learning at course, program, and institutional levels. Investigation of issues affecting, perspectives on, and models for curricular and assessment decision making.
170:250. Teaching in College -3 hrs.
Examination of issues and problems in college teaching including roles of the college teacher, factors affecting teaching and learning environment, learning theo$\pi y$, course planning, and teaching strategies.
170:252. Current Issues in Higher Education - 3 hrs.
Organized around the major issues confronting community colleges, senior colleges, and universities in contemporary society.

## 170:256. The Two-Year College - 3 hrs.

Provides the learner with an understanding of the miskion, governance, operation, and student and faculty issues unique to the two-year college in the United States, with particular attention to lowa.
170:260. History and Philosophy of Higher Education - 3 hrs.
Overview of the historical development, issues, philosophies, and cultural backgrounds of higher education in America.
170:262. Administration of Continuing and Lifelong Education - 3 hrs. Survey of the history, background and impact of continuing and lifelong education in the United States. Exploration of 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 on policy, program development, and management and consideration of significant emerging issues in these areas.
170:264. Introduction to Student Affairs - 3 hrs.
Introduction to the field of college/university student services with applications of theory to practice.

## 170:270. College Student Development -3 hrs.

Addresses student development theories (moral, ethical, intellectual, and paychosocial), and their application in student affairs settings.
170:285. Readings in Postsecondary Educution.
170:289. Seminar in Pestsecondary Education.
170:290. Practicum in Postsecondary Education - 3 hrs.
Orientation and experience for student affairs students in a professional setting. Offered on credit/no credit basis only. May be repeated for a maximum of 6 hours.

170:291. Internship in Postsecondary Education - $3-6 \mathrm{hrs}$.
Supervised substantive experience in a postsecondary secting.
170:299. Research.

## 190 Education, Interdepartmental

190:301. Context of Contemporary Education - 3 hrs .
Examination of issues and problems of concern to educational practitioners from the perspective of educational philosophy, history, and sociology. Prerequisites: 260:234; doctoral status or consent of college.
190:302. Contemporary Instructional Practices - 3 hrs.
Overview of research knowledge base regarding effective instructional practices and their interrelationship in effective schools. Prerequisites: 200:214; doctoral status or consent of college.
190:306. 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: 250:205; an upperdivision course in statistical methods; doctoral status or consent of college.
190:307. Educational Data Analysis and interpretation - 3 hrs.
Principles and techniques of computer utilization in educational research data analysis and interpretation. Prerequisites: 250:205; an upper-division course in statistical methods; doctoral status or consent of college.
190:310. Organizational Processes and Communication - 3 hrs.
Organizational development in the school setting. Examination of organizational and communication models and processes with emphasis on interaction patterns, interpersonal relations and interpersonal influence. Prerequisite: doctoral status or consent of college.
190:311. 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.
190:389. Dissertation Seminar - Credit/No Credit.
190:399. Dissertation Research - CreditNo Credit.
Initial enrollment requires attendance at Doctoral research seminar.

## 200 Educational Psychology

200:017. Field Experience: Exploring Teaching - 1 hr.
Direct and indirect experiences in the ways schools function, roles and responsibilities of teachers, and student behavior. Offered on creditno credit basis only. Corequisite: 200:030.

## 200:030. 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. Prerequisite: sophomore standing. Corequisite: 200:017.
200:100(g). Child Psychology - 2 hrs.
Application of developmental concepts, principles, and theories to contemporary problems of children ages 6 to 12 with emphasis on possible causes, children's emotional reactions, and ways of coping with these situations in the classroom. Prerequisites: 200:030 or equivalent; junior standing.
200:109(g). Development of Young Children - 3 hrs.
Growth and development of the young child with emphasis on research having important implications for the education of young children. Prerequisite: junior standing.
200:116(g). Psychology of Adolescence - 2 hrs.
Psychological concepts applied to adolescent intellectual, physical, and poychosocial behaviors; deaigned to improve understanding of, and relationships with, adolescents and their search for identity. Prerequisites: 200:030 or equivalent, junior standing.
200:118(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 imental health of teachers and students, and ways of arranging classroom environments which maximize learning and minimize threat and self devaluation. Prerequisites: 200:030 or equivalent; junior standing.
200:128. Field Experience: Teacher as Change Agent -1 hr .
Direct experiences to increase understanding of learning process and apply skills

## 200 Educational Psychology/210 Elementary, Early

 Childhood, and Middle Level Educationfor facilitating the process; may include motivation, classroom management, and teaching strategies. Offered on credit/no credit basis only. Prerequisites: 200:017; 200:030; or equivalents. Corequisites: 200:148; 250:150. (Formerly 200:018.)
200:139(g). Psychology of Personality, Education - 3 hrs.
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.
200:140(g). Social Psychology, Education - 3 hrs.
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.
200:148. Learning and Instruction in Classroom Contexts - 3 hrs.
Cognitive, affective, and psychomotor learning processes; including behavior modification, concept learning, problem solving, creativity, attitude formation, and skill learning. Prerequisites: 200:017; 200:030; or equivalents. Prerequisite or corequisite: 250:150. Corequisite: 200:128. (Formerly 200:040.)
200:151(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: 200:030; 200:148; or equivalents; junior standing.
200:170(g). Psychology of Learning Disabilities - 3 hrs.
Current theories and practices in learning disabilities with emphasis on the foundations of the field, assessment practices, and specific learning disorders. Prerequisites: 200:148 and 250:150 or equivalent; junior standing.
200:173(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. Prerequisite: junior standing. 200:176(g). Learning and Behavioral Problems in Education - 3 hrs. Learning and behavior problems of students with focus on issues of identification, etiology, assessment, developmental changes, and intervention including consideration of personal, social, cultural, historical, and economic contexts. Prerequisite: junior standing.
200:180(g). Community Service: Academic Skills Achievement Center -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.
200:188(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.
200:189(g). Seminar in Educational Psychology - 1 hr .
Provides 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. Prerequisite: junior standing.
200:198. Independent Study.
200:214. Foundations of Instructional Psychology - 3 hrs .
Study of factors involved in designing and implementing effective instructional environments.
200:220. Educational Psychology: Classroom strategies -3 hrs.
Selected instructional strategies which are extensions of contemporary learning theory that create effective teaching-learning environments. Prerequisites: 200:214 or consent of department.
200:224. Adult Development and Learning - 3 hrs.
Overview of individual development from young adul thood through middle adulthood. The emphasis is on breadth and range of individual growth and development during the adult years. Particular attention will be given to psychological issues associated with social, emotional, and cognitive development, and adult learning and teaching. (Formerly 200:120.)
200:230. Theories of Personality - $\mathbf{3}$ hrs.
Critical examination of the nature of personality theory, and a detailed analysis of the major contemporary theories of personality.

200:232. Risk and Resilience: Child, Family, School and Community Factors - $\mathbf{3}$ hrs.
Examination of children's cognitive and psycho-social development within famis ly , school and community contexts, socio-historical factors which impact child dren, families, schools and communities, and implications for elementary schod curricula and pedegogy.
200:235. Theories of Human Development - 3 hrs.
Major theories of human development (e.g., psychoanalytic, cognitive, develo mental, humanistic, and social learning theory). Includes study of noted theorists in each area and educational implications and applications of their worte Prerequisite: 200:100 or 200:109 or 200:116.
200:240. Introduction to School Psychology - 3 hrs.
Psychological services in the schools; roles and functions of school psychologivel review of professional, legal and ethical standards and implications for practice. 200:241. Cognitive Appromehes to Learning and Classroom Practice-3 hrs.
Examination of results and implications of contemporary educational researcit upon teaching and learning. Emphasis upon empirical studies in the areas of learning and developmental psychology.
200:280. Psychological Consultation in Schools - 3 hrs.
Overview of major theoretical models of consultation (including systems level consultation), an in-depth opportunity to develop behavioral consultation and intervention skills through an authentic referral, and an emphasis on professiona al accountability through monitoring the effects of intervention.
200:285. Readings.
200:289. Seminar in Education and Psychology - 1-6 hrs. Prerequisite: consent of instructor.
200:290. Practicum In Education and Psychology - 1-6 hrs.
Prerequisite: consent of instructor.
200:291. Internship in School Psychology — 2-6 hrs.
Supervised off-campus field experience.
200:299. Research.

## 210 Elementary, Early Childhood, and Middle Level Education

210:120. Elementary Classroom Management - 3 hrs.
Focus on the skills needed to plan, organize, manage, implement, and evaluatel appropriate instruction in the elementary classroom. Corerequisites: 210:1614 210:164; 230:116; 800:134.
210:121(g). Infant and Toddler Care and Education - 3 hrs.
Study of the care and education of the very young child. Important strategief and techniques for working with infants and toddlers will be examined. A 20 clock hour laboratory experience with infants and toddlers is included in this course. Prerequisites: 200:109; junior standing.
210:122. Classroom Management: Middle Level - 3 hrs.
Middle level/junior high school classroom organization and behavior management compatible with the developmental characteristics of young adolescents Corequisites for Elementary/Middle Level Education Dual Majors: 210:161 $210: 164 ; 230: 116 ; 800: 134$. Prerequisite for Secondary/Middle Level Education Dual Majors: Pre-approval required one year in advance. See College of Education Advising Center.

## 210:123(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. Prerequisite: junior standing.
210:130(g). Guidance and Instruction in Early Childhood Education - 3 hrs.
Discussion of the role of the teacher in guiding young children in their learning activities. Emphasis on planning and implementing early childhood programs. Prenequisites: 210:151; junior standing. Corequisite: 210:192.
210:135(g). Middle Level Socialization and Instruction - 3 hrs.
Instructional strategies and resources for addressing the social, emotional, physical, and intellectual needs of young adolescents in the middle level/junior high school classroom. Prerequisites: 200:148; 200:116; junior standing.
$\mathbf{2 1 0 : 1 4 1 ( g )}$. 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 analyais and research investigations. Prerequisites: $800: 134$ or equivalent; junior standing.

210:142(g). Applications in Elementary Science Teaching - 3 hrs.
Resources, content background and materials in elementary science with emphasis on applications. Special attention 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.
210:143(g). Applications in Elementary Social Studies Teaching - $\mathbf{3} \mathbf{h r s}$. Applying knowledge of current trends, resources, and content as a means of developing, enriching, and expanding the social studies curriculum. Prerequisites: 210:164; junior standing.
210:145(g). Storytelling - 2 hrs.
Art and techniques of storytelling to enrich the elementary classroom learning experiences. Prerequisite: junior standing.
210:149(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 her/his maximum potential. Emphasis on preschool-kindergarten level. Prerequisite: junior standing.
$\mathbf{2 1 0 : 1 5 0 ( g ) . ~ M i d d l e ~ L e v e l ~ C u r r i c u l u m ~ - ~} 3$ hrs.
Teaching strategies, instructional resources, and school organization designed specifically for meeting the unique needs of young adolescents in the middle level/junior high school setting. Prerequisites: 200:148; 200:116; junior standing. 210:151(g). Early Childhood Curriculum Development and Organization

## -3 hrs.

Current trends in curriculum for preschool children. Prerequisite: junior standing. 210:152(g). Elementary Curriculum - 3 hrs.
Recent trends in the curriculum for children in grades K-6. Prerequisite: junior standing.
210:155(g). Constructivist Early Education - 2 hrs.
Overview of theory and practice in constructivist early childhood education. Surveys the sociomoral atmosphere (including group time, rule making, voting, social and moral discussion, academics, etc.), physical knowledge activities, and group games. Prerequisite: junior standing.
210:161. Teaching Elementary School Science - $\mathbf{3}$ hrs.
Investigation of current textbook series, trends, teaching materials, and appropriate instructional strategies for contemporary elementary school science programs. Corequisites: $210: 120$ or $210: 122 ; 210: 164 ; 230: 116 ; 800: 134$.
210:164. Teaching Elementary School Social Studies - 3 hrs.
Basic methods and materials for teaching the knowledge, skills, attitudes and values in social studies. Corequisites: 210:120 or 210:122; 210:161; 230:116; 800:134.
210:192(g). Experience - 2-4 hrs.
May be offered in various specialized fields as indicated in Schedule of Classes, but may be taken only twice for credit in the same area. Prerequisite: successful completion of 200:017 and 200:128; junior standing. Corequisite: 210:130.
210:193. Early Childhood Experience - 2-4 hrs.
Early Childhood majors taking this course to satisfy pre- K-level field experience requirement must register on a credit/no credit basis.
210:201. Issues and Trends in Curriculum - 3 hrs.
Current ideas influencing the planning and implementation of curriculum. Prerequisite: consent of department.
210:204. Curriculum Construction - 3 hrs.
Role of the classroom teacher in curriculum development projects, focusing on educational change process, procedures, and product evaluation. Prerequisite: 210:201 or consent of the head of the Department of Curriculum and Instruction.
210:212. Recent Research in Eiementary School Science $-\mathbf{3}$ 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: 210:142 or 210:152 or consent of department.
210:214. Recent Research in Eariy Childhood Education - 3 hrs.
Review of implications of research to gain techniques for improving instruction and programs for young children. Prerequisite: 210:151 or equivalent.
210:220. 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.

210:221. Analysis and Design of Curriculum for Young Children - 3 hrs. Basic assumptions underiying curriculum for young children to prepare students to improve teaching practices, and provide direction to future decision making on programs and materials.
210:222. Evaluating the Early Childhood Curriculumn - 3 hrs.
Preparation for conducting and interpreting ongoing curriculum evaluations and meeting evaluation guidelines for funding purposes. Emphasis on evalustion for effective decision making and curriculum problem solving at local level. Prerequisite: 210:221 or equivalent.
210:225. Advanced Constructivist Education - 3 hrs.
Study of theory, research, and curriculum in constructivist education. Selected theoretical topics. Prerequisites: 210:155; 210:221.
210:228. Comparative Early Childhood Curricula - 2 hrs.
Comparative study of curricula and programs of early education including the Montessori Method, Bank Street theory and practice, and various programs based on Piagetian theory. Prerequisites: 210:155; 210:221.
210:242. 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: 210:142 or $210: 152$ or consent of department.
210:243. Analysis and Improvement of Social Studies Instruction in the Elementary School - 3 hrs.
Assists teacher in exploring historical and current practices in social studies to create new approaches by using available resources and ideas. Prerequisite: 210:143 or $210: 152$ or consent of department.
210:254. The Gifted and Talented - 3 hrs .
Educational needs of gifted and talented children and youth. Emphasis on characteristics, identification/assessment, special populations, counseling, parenting, and program intervention.
210:255. Educational Strategies for Gifted and Talented - 3 hrs.
Current trends in educational programming for the gifted and talented. Prescription, implementation, and eveluation of differentiated curriculum/educational strategies used in the comprehensive program. Prerequisite: 210:254 or consent of instructor.
210:257. Coordinating Programs for the Gifted and Talented - 3 hrs.
Methods/procedures for coordinating/directing school district PK-12 programs for the gifted and talented. Emphasis on program planning, management, supervision, and evaluation. Prerequisites: $210: 254 ; 210: 255$; or consent of instructor.
210:270. Recent Developments in Middle Level Curriculum - 3 hrs.
Recent developments regarding curricular decision making, organizational structures, and instructional strategies appropriate for middle and junior high schools based on the developmental characteristics of young adolescents.
210:285. Readings in Education - $\mathbf{1 - 3} \mathbf{~ h r s}$.
210:289. Seminar in Education - 2 hrs.
Special topics listed in Schedule of Classes.
210:297. Practicum - 2-3 hrs.
210:299. Research.
210:352. Curriculum Theory and Development - 3 hrs.
Assists 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.
210:354. Curriculum Implementation and Evaluation - $\mathbf{3}$ hrs.
Systems for program evaluation and revision and the dynamics of change processes will be explored.
210:389. Seminar in Curriculum and Inseruction - 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: 210:352; 210:354; 240:240.
210:397. 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 for a maximum of 4 hours. Prerequisites: 210:352; consent of instructor.

## 220 Special Education

220:050. Introduction to Exceptional Persons - $\mathbf{3}$ hrs.
Overview of the field of Special Education including historical perspective, characteristics, programs, and legal provisions.
220:140(g). Home Intervention Services to Infants and Toddlers with
Disabilities and Their Families - $\mathbf{3}$ hrs.
Screening, assessment, curriculum, and evaluation for infants/toddlers with disabilities. Includes strategies for working with parents and an overview of service delivery models. Prerequisites: 220:050; 220:174; junior standing. Corequisite: 220:192.
220:141(g). Including Young Children with Special Needs Into the
General Education Programs - 3 hrs.
Advanced best practices for educating young children with diverse learning needs in the general education classroom. Prerequisite: 20:150; 220:192 (tutorial); junior standing. Corequisite: 220:192.
220:142(g). Classroom Instructional Management for Students with Mild Disabilities ( $\mathrm{K}-6$ ) -3 hrs.
Designed to develop the instructional and behavioral management competencies required to teach K-6 students with mild disabilities. Preerequisites: 220:150; junior standing. Corequisite: 220:192.
220:143(g). Classroom Instructional Management for Students with Mild Disabilities ( $7-12$ ) -3 hrs.
Designed to develop the instructional and behavioral management competencies required to teach students in grades 7-12 with mild disabilities. Prerequisites: 220:150; junior standing. Corequisite: 220:192.
220:144(g). Teaching Students with Mild Mental Disabilities (K-6) - $\mathbf{3}$ hrs.
K-6 curriculum, methods and materials course for students with mild mental disabilities and includes the concepts of career vocational education, transition and integration of students with mental disabilities into general education programming as appropriate. Prerequisites: 220:167; junior standing. Corequisite: 220:192.
220:145(g). Teaching Students with Mild Mental Disabilities (7-12) - 3 hrs.
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. Prerequisites: 220:167; junior standing. Corequisite: 220:192.
220:146(g). Methodology and Assessment for Students with Mild Disabilities $(K-6)-3$ hrs.
Deals with pragmatic knowledge about methodologies, techniques, and technology related specifically for small group instruction of K-6 students with mild disabilities. Prerequisites: 220;174; junior standing. Corequisite: 220:192.
220:147(g). Methodology and Assessment for Students with Mild Disabilities (7-12) -3 hrs.
Deals with pragmatic knowledge about methodologies, techniques, and technology related specifically for small group instruction of students in grades $7-12$ with mild disabilities. Prerequisites: 220:174; junior standing. Corequisite: 220:192. 220:148. Professional Interdisciplinary Relationships II - 3 hrs.
Designed to introduce the preservice teacher to the skills necessary to work effectively as a professional member of a multidisciplinary team. Skill orientation and development will emphasize the social style concept, communication and collaboration skills, and team building for inclusionary practices. Prerequisites: 220:150; 220:184.
220:150. Meeting the Needs of Diverse Learners in Classrooms - 2 hrs.
Introduction to pedagogical, curricular, and social considerations involved in educating diverse learners in the general education classroom. Prerequisites: 200:030; 200:148; 250:150.
220:151(g). Vocational and Transition Programming for Individuals with Disabilities - 3 hrs .
Development and implementation of work experience and other vocational programs for adolescents and adults with disabilities. Overview of the transition planning process and resources. Prerequisites: 220:174; junior standing. 220:152(g). Community Resources for Special Education - 3 hrs. Study of cooperation and coordination of the school and other agencies serving the disabled, including various programs and services provided by governmental and private organizations. Prerequisites: 220:050 or 220:150; junior standing; consent of instructor.

## 220:153(g). Adaptations for Students with Physical and Sensory

 Impairments $\mathbf{- 3} \mathbf{~ h r s . ~}$Modification of physical structures, equipment, materials, and procedures for disabled students with accompanying physical, sensory and/or multiple impalial ments. Prerequisites: $220: 174$ or consent of instructor; junior standing.

## 220:155(g). Overview: Teaching the Mildly Disabled and At-Risk

Student - 3 hrs.
Introduction to teaching diverse learners in multicategorical resource and genexy al class settings. Focus on service models and trends, program implementation consultation/collaboration and in-service training. Prerequisites: 220:050 or 220:150; junior standing; consent of department.
$\mathbf{2 2 0 : 1 6 7 ( g )}$. Overview of Education of Students with Mental Disabilities $-2 \mathrm{hrs}$.
Current and historical educational trends, etiology, and impact of the disability on the child and family. Prerequisites: 220:050 or 220:150; junior standing.
220:170(g). Educational Management in Special Education - 3 hrs.
Individual behavior management, behavioral change strategies, and classroord management for students with tpecial needs. Prerequisites: 220:050; junic standing. Corequisites: 220:174; 220:192.
220:174(g). Assessment and Instruction for Students with Mild Disabilities - $\mathbf{3}$ hrs.
Collection and use of educational data to assess and teach students with divercu learning needs. Educational planning, material adaptation, and curriculur development also addressed. Prerequisites: 220:150; junior standing Corequisites: 220:170; 220:192.
220:183 (g). Teaching Students with Moderate Disabilitles - $\mathbf{3}$ hrs.
Instructional methods, materials and assessment for students labeled with moderate disabilities. Emphasis on functional, age-appropriate, longitudinal curricut] lum development. Includes teaching students with moderate mental disabilitie: who may have accompanying physical, behavioral, and/or sensory impairmenty Prerequisites: 220:167; 220:174; junior standing. Corequisite: $220: 192$ or consent of instructor.
220:184(g). Professional Interdisciplinary Relationships in Special
Education I- 3 hrs.
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 ind the educational program. Prerequisites: 220:050 or 220:150; junior standing.
220:185(g). Readings in Special Educetion - 1-2 hrs.
Reading and discussion of current methodological developments and innovetions in special education. May be repeated once for a maximum of 2 hours. Prerequisite: junior standing.
220:187(g). Teaching Students with Severe Disabilities $\mathbf{- 3}$ hrs.
Instructional methods, materials and assessment for students with severe disabilities. 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 disabilities. Prerequisites: 220:167; 220:174; or consent of instructor; junior standing. Corequisite: 220:192 or consent of instructor.
220:192(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. Prerequisites: junior standing; consent of instructor.
220:240. Collaborative Consultation I: The Relationship - 3 hrs.
Emphasis on the psychological and behavioral considerations involved in successfully forming and maintaining a collaborative consulting relationship. Indepth topics covered are self-management, personality style and versatility, starting the relationship, and establishing one's role with the group and individual.

## 220:245. Collaborative Consultation II: The Process - $\mathbf{3}$ hrs.

Provides in-depth understanding and beginning execution of two systematic models of collaborative consulting including four processes or sets of procedures for carrying out the models. Emphasis on planning, problem clarification and analysis, teaching and teacher strategy, presenting solutions, and dealing with teacher concerns and fears.
220:254. Vocational and Transition Assessment of Individuals with Disabilities $\mathbf{- 3}$ hrs.
Assessment techniques for professionals working with adolescents or adults with disabilities. Requires application of these techniques. Designed for those interested in vocational and transition programming for individuals with disabilities. Prerequisite: 220:151 or consent of instructor.

220:256. Best Practices in Inclusion - 3 hrs.
In addition to providing preparation in pedagogical, curricular, and professional collaboration practices, designed to provide students with lnowledge of empirical, legal, and historical considerations integral to the accommodation of all learners into the general education classroom. Prerequisite: graduate standing. 220:260. Special Education Law and Policy - 3 hrs.
Designed to provide the student with information and conceptual understanding of legislative, executive, and judicial action affecting special education programs for children and youth with disabilities. Prerequisite: graduate standing.
220:278. Administration of Special Education - 3 hrs .
Prepares administrators to plan programs for various areas of special education, to select and evaluate personnel, provide instructional materials, interpret the program to the community, and be informed concerning legal provisions for special education.
220:289. Seminar - 3 hrs.
May be repeated on different topics for a maximum of 9 hours. Prerequisites: 220:183 or 220:187; 220:192.
220:290. Practicum - 1.6 hrs.
Requires written consent of department. May be repeated for a maximum of 9 hours.
220:299. Research - 2-3 hrs.
May be repeated for a maximum of 6 hours.
220:340. The Law, the Policy, and the Administration of Special
Education - 3 hrs.
An introduction to the study of the law, the policy, and the administration of educational programs for students with disabilities. Prerequisite: A master's degree in Special Education, Educational Leadership, or the Principalship certification.

## 230 Reading and Language Arts

230:044. Children's Literature - 3 hrs.
Evaluation, selection, and teaching of literature in the elementary school language arts program.
230:111(g). Emergent Literacy and Language Development - 3 hrs.
Theories underlying young children's acquisition of oral language and early reading and writing. Emphasis on implications for literacy curriculum in the primary grades. Prerequisite: junior standing.

## 230:113(g). Teaching Expressive Language Arts - 3 hrs.

Exploration of methods of fostering creative oral and written language expression in elementary schools. Experience with individual children and small groups. Prerequisites: $230: 044,230: 115$ or $230: 134$; junior standing or consent of the College of Education Advising Center.
230:115. Teaching Reading and Language Arts $1-3$ hrs.
First course in the methods of teaching Reading and Language Arts in the elementary school. Focus on instruction in grades K-3, with an emphasis on integrating reading, writing, speaking, and listening, as well as integration of the content area.
230:116. Teaching Reading and Language Arts II - 3 hrs.
Second course in the methods of teaching Reading and Language Arts in the elementary school. Focus on instruction in grades 3-8, with an emphasis on integrating reading, writing, speaking, and listexing, and content area reading and writing. Corerequisites: $210: 120$ or $210: 122 ; 210: 161 ; 210: 164 ; 800: 134$.
$230: 130(\mathrm{~g})$. 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.
230:132(g). Language Arts Across the Curriculum - 3 hrs.
Emphasis on 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. 230:134(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.
230:140(g). Diagnestic 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. Prerequisites: 230:115 or 230:116 or 230:130; junior standing.

## 230:144(g). Literature for Elementary Children - 3 hrs.

Advanced course in children's literature. Includes issues and trends in the development of literature-based school programs. Prerequisites: 230:044; junior standing.
230:145(g). Multicultural Children's Literature - 3 hrs.
Advanced course in multicultural children's literature, designed to examine the values and uses of literature by and about diverse cultural groups in the U.S. Main focus on books reflecting the four major minority cultures: Native, African, Hispanic, and Asian American cultures. Students may also study literature about white ethnic groups, such as Appalachians and Jews. Discussion of issues and controversies surrounding such books. Prerequisite: junior standing. 230:147(g). Remedial Reading - 3 hrs.
Selection, implementation, and interpretation of a variety of reading and language arts assessment procedures and the development of effective individualized instructional programs. Prerequisites: 230:140; junior standing. Corequisite: 230:192.
230:192(g). Experience in Reading: Tutoring - 2-3 hrs.
Supervised tutoring in the University Reading Center or in a public school Reading Center. Prerequisites: 230:140; junior standing. Corequisite: 230:147.
230:193(g). Experience in Reading: Field $\mathbf{- 1 - 2} \mathbf{~ h r s}$.
Supervised experience teaching in elementary or secondary reading programs. May be repeated for a maximum of 4 hours. Prerequisite: junior standing.
230:210. Recent Research in Reading - 3 hrs.
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.

## 230:238. 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: 230:147.
230:240. Variabllty in Language Learning and Literacy Development 3 hrs.
Exploration of research on factors generally associated with variability in literacy development, programs designed to assist in literacy development, and roles of teachers and parents in promoting literacy development in children with different rates of development. Prerequisites: 230:147; 230:238.
230:250. 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.
230:260. Roles of the Reading Specialist - 3 hrs.
Exploration of the five major leadership roles required of school personnel who serve as reading and language arts specialists. Prerequisite: graduate standing or consent of instructor.
230:289. 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.
230:290. 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.
230:299. Research
230:354. 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: 210:352.
230:389. Seminar in Reeding - 1 hr.
Series of one-hour seminars to accompany doctoral work in statistics, research, and practicum experiences. May be repeated for a maximum of 3 hours. Prerequisite: consent of instructor.
230:397. Practicum in Reading - 2-4 hrs.
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 for a maximum of 4 hours. Prerequisite: consent of instructor.

## 240 Educational Technology

240:020. 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.
240:030. Classroom Computer Applications - 3 hrs.
Use of microcomputer technology in the classroom. Emphasis on evaluating instructional software and integrating computer technology with common teaching/learning practices. Prerequisite: 240:020 or 240:031.
240:031 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.
240:131(g). Technology in Education - 3 hrs.
Addresses technology as both hardware, process, and system. Students will investigate the social and scientific uses of technology in education from various perspectives. Students will address the issues confronting contemporary education, school reform, and technology. Prerequisite: junior standing.
240:138(g). Educational Graphics Design - 3 hrs.
Focuses on examining aspects of visual design. Students will leam to interpret and design visuals that facilitate communication. Prerequisites: junior standing; consent of instructor.
240:139(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: 240:020 or 240:031; junior standing; consent of instructor.
240:140(g). Using Databases in Education - 3 hrs.
Designed to introduce students to using databases and informational retrieval systems in an educational setting. Emphasis on the students learning the basic concept and skills of databasing and experiencing the ways that databases can be used in a teaching method to emphasize problem-solving. Exploration beyond personal computer databases to using and integrating Internet resources into classroom curriculum. Prerequisites: 240:020 or 240:031; junior standing.
240:147(g). Educational Digital lmaging - 3 hrs.
Focuses on the basic principles, skills, and techniques of preparing digital images. Lab as arranged. Prerequisites: junior standing consent of instructor.
240:150(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: 240:020 or 240:031; junior standing; consent of instructor.
240:153(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: junior standing; consent of instructor.
240:160. Media Projects $-1 \mathbf{4}$ 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. Computer Applications. Prerequisite: 240:020 or 240:031.
Sec. 2. Digital Audio.
Sec. 3. Digital Imaging. Prerequisite: 240:147.
Sec. 4. Graphics. Prerequisite: 240:138.
Sec. 5. Learning Environments.
Sec. 6. Multi-Media Communications.
Sec. 7. Television. Prerequisite: 240:150.
Sec. 8. Visualization.
Sec. 9. Web Development.
May be repeated for credit to a maximum of 4 hours for any section.
240:170(g). The Principles of Publication Design - 3 hrs.
Focus on evaluation and design of electronically produced materials. Hands-on experiences with desktop publishing are included. Prerequisite: junior standing.
240:186. Studies in Media - $1-4$ hrs.
240:189. Readings in Media - 1-3 hrs.
240:205. Instructional Computing Design - 3 hrs.
Evaluation and design of computer-based instructional materials. Hands-on experiences with the design of computer-based lessons. Prerequisite: 240:240.

240:210. Distance Education - 3 hrs .
Introduction to distance education. Focus on historical perspectives, theoried research, and operational issues.
240:230. 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.
240:232. Selection and Integration of Materials - 3 hrs.
Evaluation of the instructional setting along with the procedures for selection and integration of materials.
240:235. Managing Educational Technology Programs - 3 hrs.
Advanced course to prepare a media graduate to administer any one or all of that specific areas of media.
240:240. Instructional Development - $3 \mathbf{h r s}$.
Analysis and synthesis for structuring learning environments including leamera task, environmental, and instructional strategy analysis.
240:253. Interactive Video Design - 3 hrs.
Focus on evaluation and design of interactive videodise instructional materialas Hands-on experiences with the development of this type of instruction are included. Prerequisites: 240:240; consent of instructor.
240:260. Advanced Media Projects - $\mathbf{1 - 4} \mathbf{~ h r s .}$
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. Computer Applications. Prerequisite: 240:020 or 240:031.
Sec. 2. Digital Audio.
Sec. 3. Digital Imaging. Prerequisite: 240:147.
Sec. 4. Graphics. Prerequisite: 240:138.
Sec. 5. Learning Envirorments.
Sec. 6. Multi-Media Communications.
Sec. 7. Television. Prerequisite: 240:150.
Sec. 8. Visualization.
Sec. 9. Web Development.
May be repeated for maximum of 4 hours for any section.
240:285. Readings in Media - $1-3 \mathrm{hrs}$.
240:286. Studies in Media - 1-4 hrs.
240:289. Seminar - 2 hrs.
240:297. Practicum - 2-3 hrs.
240:299. Research.
240:340. Designing instructional Systems -3 hrs .
Application of current research and theory to the instructional design process. Students are guided through the syatematic process of translating principles of learning and instruction, employing several instructional design models.

## 250 Measurement and Research

250:150. Classroom Evaluation Instruments $\mathbf{- 2} \mathbf{~ h r s . ~}$
Introduction to classroom evaluation instruments; includes preparation and use of teacher-constructed assessment devices, and purposes and interpretation of standardized instruments. Prerequisites: 200:017; 200:030. Prerequisites or corequisites: 200:128; 200:148. (Formerly 250:050.)
$250: 180(\mathrm{~g})$. Statistical Methods in Education - 3 hrs.
Introduction to statistical methods. Includes graphing techniques, measures of central tendency and variability, correlation, t-tests, one way ANOVA, and chisquare. Prerequisite: junior standing.
250:181(g). Educational Evaluation in Teaching - 3 hrs .
Principles of measurement and evaluation in the elementary, secondary and postsecondary schools. Test construction techniques for written tests and performance tests, with norm-referenced and criterion-referenced interpretations; uses fof teacher-made instruments and standardized tests. Prerequisites: 200:148; 250:150 or equivalent; junior standing.
$\mathbf{2 5 0 : 2 0 5}$. Educational Research - 3 hrs .
Evaluation of educational research concepts, including purposes, hypotheses, principles of research design, data collection, and interpretation of results.

## 250:270. 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.
250:280. Theory and Construction of Tests -2 hrs.
Advanced course in the theory of test construction and practical application of the theory to actual construction and validation processes. Prerequisites: 250:180; 250:181.

## 250 Measurement and Research/260 Social Foundations/ 270 Educational Leadership

250:281. Statistics and Measurement - $\mathbf{3}$ hrs.
Application of statistical principles to research in school psychology. Topics selected from: correlational analysis; reliability and validity; analysis of variance; samplings, chi-square, t , and F distributions. Emphasis on statistical inference and basic measurement principles. Prerequisite: $250: 180$ or the equivalent.
250:282. Individual Intellectual Assessment - $\mathbf{3}$ hrs.
Standardization, cross-validation, administration, scoring, and elementary interpretation of: Stanford-Binet Scale, Wechsler Preschool and Primary Scale, Wechssler Inteligence Scale for Children, Wechsler Adult Intelligence Scale.
250:283. Psychodiagnostics -3 hrs.
Ecological approach to the assessment of student educational development. RIOT (record review, interview, observe, test) skills are developed. Focus on ethical considerations and test standardization issues.
250:284. 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.
250:285. Readings.
250:289. Seminar in Evaluation and Research.
250:299. Research.
250:300. Descriptive Educational Research - 3 hrs.
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: $250: 180$; 250:205; 250:281; or consent of department.
250:301. 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: 250:180; 250:205; 250:281; or consent of department.
250:302. Qualitative Methods in Educational Research - 3 hrs .
Study of the techniques of direct observation and analysis of human behevior in ongoing, naturalistic settings. Focus on problems associated with the two main approaches used in qualitative research - parricipant observation and in-depth interviewing. Prerequisites: 250:180; 250:205; 250:281; or consent of department.

## 260 Social Foundations

260:020. Introduction to Teaching as a Profession - 3 hrs.
For the undecided individual to explore the personal and profeasional considerations associated with a decision to teach.

## 260:1 19. Schools and Americin Soclety - 3 hrs.

Relationship of schools and American society from sociological, historical, philosophical, political, and economic perspectives. Focus on central characteristics of the educational system and influence of these on teachers as professionals and teaching as a profession. Prerequisites: 200:128; 200:148; 250:150.

## 260:120(g). Sociology of Education - 3 hrs.

Examination of the sociology of classroom learning and the role of schooling in socinl stratification and social mobility. Prerequisite: junior standing.
260:121(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: 200:128; 200:148; 250:150; 260:119; junior standing.
260:134(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.

## 260:135(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.
260:138(g). Comparative Education - $\mathbf{3}$ hrs.
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.

260:139(g). Asian Education Systems: Soviet Comparisons - 3 hrs.
Description and comparison of the educational systems of ten Asian countries with that of the Soviet Union. Evaluation of Asian and Soviet education from a Western perspective. Prerequisite: senior standing or Russian Area Studies major/minor.
260:234. Phillosophy of Education - 3 hrs.
Analytical study of major philosophical viewpoints of modern education, emphasis on professional problems of education and the development of educational principles.
260:299. Resoarch.

## 270 Educational Leadership

270:198. Independent Study.
270:206. Orientation to Educational Leadership - 1 hr .
Orientation to the study of school leadership, the historical development of schools, philosophical perspectives impacting educational practices, and issues and trends influencing educational developments. Corequisite: $270: 232$.
270:208. Personal and Professional Development - 1 hr.
Examination of the concepts of educational and leadership ethics, personal characteristics and ability for educational leadership roles, and the necessary skills to deal with stress and the demands of leading an educational organization. Prerequisites: 270:206; 270:224; 270:232; or corequisite. 270:280.
270:224. Organizational Studies - $\mathbf{3}$ hrs.
Provides a knowiedge base for the study of contemporary and classical thought on organization behavior and organization development in schools. Prerequisites: 270:206; 270:232; or consent of instructor.
270:232. School Governance, Law and Intersystems Relations - 3 hrs.
Development of knowledge of the many aspects of local, regional, state, and federal governance of public schools, legal issues, school funding, respect for people's rights, and competence in managing school risk to avoid legal liability. Corequisite: 270:206.
270:245. Leadership -3 hrs.
Study of contemporary leadership, change, and staff development in school organizations. Prerequisites: 270:206; 270:208; 270:224; 270:232; 270:247; 270:249; 270:280: 270:284; or consent of instructor.
270:247. Organization Management: School and Community - 3 hrs.
Examination of the key administrative concepts and techniques employed by effective school principals. Prerequisites: 270:206; 270:208; 270:224; 270:232; 270:244; 270:280; or consent of instructor.
270:249. Curriculum and Instruction - 3 hrs .
Knowledge and skills for elementary and secondary principals in providing leadership in curriculum development practices commensurate with individual, school, and community belief systems. Prerequisites: 270:206; 270:208; 270:224; 270:232; 270:280; or consent of instructor.

## 270:280. Technology - 2 hrs.

Development of computer skills in the area of word processing, data base and spreadsheet applications. Emphasis will be placed on the applications of current technology and the development of a technology plan within a school system. Prerequisites: 270:206; 270:224; 270:232; or consent of instructor.
270:282. Change and Transformation - 3 hrs.
Integration of knowledge about leadership, change, and staff development into a holistic vision of leading a achool transformation project. Prerequisites: 270:206; 270:208; 270:224; 270:232; 270:245; 270:247; 270:24; 270:280; 270:284; or consent of instructor.
270:284. Facilitating Professional Growth - 3 hrs .
Development of knowledge of various problems and procedures in the organization of elementery and secondary school professional growth. Special emphacis on supervision processes and identifying and analyzing effective teeching and performance behaviors. Prerequisites: 270:206; 270:208; 270:224; 270:232; 270:247; 270:249; 270:280; or consent of instructor.
270:285. Readings in Educational Leadership - 1-3 hrs.
Prerequisite: written consent of instructor.
270:289. Seminar in Educational Leedership.
Seminars are offered on special topics as indicated in the Schedule of Classes.
270:290. Practicum in Principaliship - 2-4 hrs.
Offered on credit/no credit basis only. Prerequisite: Practicum integrated throughout program.
270:299. Research.

270:310. Human Resource Administration - $\mathbf{3}$ hrs.
Teacher selection and placement, promotion, tenure, and retirement; administration of pupil personnel facilitating services.
270:314. Introduction to the Superintendency - 3 hrs.
Introduction to the study of the superintendency to gain familiarity with the various aspects and challenges facing superintendents, to develop understanding of the dynamics which affect superintendent's behaviors, and to develop an understanding of the specific responsibilities of the superintendency. Prerequisite: a master's degree in Educational Leadership or the Principalship certification.
270:320. Curriculum/Program Assessment/Accountability - $\mathbf{3}$ hrs.
Provides superintendency students with an expanded knowledge base of the processes of curriculum planning and development, instructional management, and program evaluation. Prerequisite: a master's degree in Educational Leadership or the Principalship certification.
270:325. Organization, Govemance, 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.
270:330. Technology for Administrative Instructional Leadership - 3 hrs.
Provides students with an expanded knowledge base of the processes for gathering, analyzing, and using data for informed decision making as well as experiences with utilizing computers and other technologies connected with instruction and educational programming. Prerequisite: a master's degree in Educational Leadership or the Principalship certification.

## 270:338. Safe, Effective, and Efficient Environment - 3 hrs.

Provides students with a familiarity of the issues and challenges of school safety, school climate and discipline, school crises planning, personal safety, school security, parent and community roles in crime and crisis prevention with an emphasis on being proactive rather than reactive. Prerequisite: a master's degree in Educational Leadership or the Principalship certification.
270:340. Educational Finance - 3 hrs.
Financial support for education; emphasis on Iowa.
270:342. Decision Making - 2 hrs.
Environmental and personnel factors influencing decision making; specific emphasis on the process, competencies and consequences.
270:346. School Business Management/Buildings and Sites -4 hrs.
Assists school administrators in effectively and efficiently managing the business affairs of a school district and develops a greater appreciation and understanding of school business management. Prerequisites: 270:340; a master's degree in Educational Leadership or the Principalship certification.
270:354. Collective Bargalning in the Public Sector -3 hrs.
Basic principles of collective bargaining as they apply to educational administration. 270:363. Administrative and Organizational Theory in Education - 3

## hrs.

Examination of contemporary and classical thought related to organizational dynamics and administrative leadership and decision making in the public sector. Limited to post-master's students only.

## 270:385. Readings In Educational Leadership - 1-3 hrs.

Individualized list of selected readings in an area of emphasis, as determined by instructor and student. Prerequisite: written consent of instructor.
270:389. Seminar in Educational Leadership - 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.
270:397. Practicum In Educatlonal Leadership - 2-4 hrs.
May be repeated. Offered on credit/no credit basis only. Limited to post-master's students only. Prerequisite: consent of advisor.

## 280 Teaching

280:070. 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 this awareness can be translated into positive relationships with others is stressed. Corequisite: Student teaching.

280:132. Early Childhood Teaching - 4-12 hrs.
Offered on credit/no credit basis only. Prerequisite: Completion of Levels I and Il of the Professional Education Requirements. Provides the student the opporf tunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include planning and organizing for instruction, developit classroom teaching competencies and skills, evaluating pupil progress, partic pating in extra-class ectivities, working with special school personnel, and utili ing school and community resources in the instructional program.
280:134. Elementary Teaching -4-12 hrs.
Offered on credit/no credit basis only. Prerequisite: Completion of Levels I and Il of the Professional Education Requirements. Provides the student the oppor tunity to experience, in depth, the full role and meaning of tenching in a schoul setting. Experiences include planning and organizing for instruction, developirl| classroom teaching competencies and skills, evaluating pupil progress, partic pating in extra-class activities, working with special school personnel, and utilis ing school and community resources in the instructional program.

## 280:135. Special Education Temehing - $\mathbf{4 - 1 2}$ hrs.

Offered on creditno credit basis only. Prerequisite: Completion of Levels I and Il of the Professional Education Requirements. Provides the student the oppor tunity to experience, in depth, the full role and meaning of teaching in a schod setting. Experiences include planning and organizing for instruction, developiri classroom teaching competencies and skills, evaluating pupil progress, partic pating in extra-class ectivities, working with special school personnel, and utilis. ing school and community resources in the instructional program.
280:137. Middle School/Junior High Teaching - 412 hrs.
Offered on credit/no credit basis only. Prerequisite: Completion of Levels I and II of the Professional Education Requirements. Provides the student the opport tunity to experience, in depth, the full role and meaning of teaching in a schod setting. Experiences include planning and organizing for instruction, developinf classroom teaching competencies and skills, evaluating pupil progress, partict pating in extra-class ectivities, working with special school personnel, and utilir ing school and community resources in the instructional program.
280:138. Secondary School Teaching - $\mathbf{4 - 1 2}$ hrs.
Offered on credit/no credit basis only. Prerequisite: Completion of Levels I and II of the Professional Education Requirements. Provides the student the oppors tunity to experience, in depth, the full role and meaning of teaching in a school setting. Experiences include planning and organizing for instruction, developinf classroom teaching competencies and skills, evaluating pupil progress, partich pating in extra-class activities, working with special school personnel, and utilixs ing school and community resources in the instructional program.
250:139. Vocationa/Technical Teaching - $4-12 \mathrm{hrs}$.
Offered on credit/no credit basis only. 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, developinst classroom tenching 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.
280:140. Special Area Teaching: Art, ESL, Llbrary Sclence, Music,
Physlcal Education, and Speech-Pathology - 4-12 hrs.
Offered on credit/no credit basis only. 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.
280:150. Laboratory Practice - Elementary(").
280:151. 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 teeching procedures, construction and use of classroom instructional materials, analysis of the reach-ing-learning process, meeting needs of exceptional children, clasoroom supervision, and achool-parent relations. Special seminar arranged. Departmental recommendation and consent required.

## 280:170(g). Human Relations - 3 hrs.

Examination of societal subgroup differences and the impact of sexism, racism, ageism, disabilities, 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. Prerequisite: junior standing.

## 280:191(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. Prerequisite: junior standing.

## 280:250. Advanced Laboratory Practice - 2-12 hrs.

Student may concentrate on any aspect of the school program, such as curricuJum, methods, evaluation, remedial instruction, guidance, supervision, administration, public school relations, educational technology and audio-visual aids, and extra-class activities. Consent of the Head of Department of Teaching required.

## 290 Counseling

290:103(g). Introduction to Professional Counseling - 3 hrs.
Introduction to counseling in school ( $\mathrm{K}-12$ ), mental health and community agency settings. Emphasis on professional roles, current trends, and legal/ethical issues. Prerequisite: junior standing; consent of department head.

## 290:105(g). Counseling Skills - 3 hrs.

Focus on developing counseling skills with emphasis on self-understanding and its impact on the counseling process. Verbal and non-verbal counseling skills are developed through lecture, demonstration, and extensive laboratory practice. Prerequisite: junior standing; consent of department head.
290:198. Independent Study.

## 290:204. Introduction to Play Therapy - 3 hrs.

Instruction designed to introduce counseling students to the theories and methods of using play techniques for counseling and assessing children and adolescents. Major emphasis on supervised play therapy experience. Prerequisites: 290:105; 290:254; consent of department head.
290:205. Counseling Processes with Individuals and Systems - $\mathbf{3}$ hrs.
Designed to develop advanced-level counseling skills necessary for clinical practice in mental health settings. Focus on individually-based and systems-based theoretical approaches to problem conceptualization and on specific interventions for initiating, sustaining, and terminating the counseling experience. Extensive skill practice/lab. Prerequisites: 290:105; 290:224; consent of department head. Corequisite: 290:227.
290:210. Developing Comprehensive School Counseling Programs - 3 hrs.
Focus on managing, organizing, and designing K-12 comprehensive, sequential, developmental guidance programs. Prerequisites: School Counseling major; consent of department head.

## 290:220. Group Process -3 hrs.

Emphasis on developing group leadership skills for school and mental health counselors. Prerequisite: 290:224; consent of department head.

## 290:224. Applled Group Dynamics - 2 hrs.

Involvement in laboratory learning emphasizing the concepts and skills necessary for effective group membership. Covers group development theory, conflict management, and conditions for personal and interpersonal learning in group settings. Prerequisite: consent of department head.
290:225. 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. Prerequisites: 290:103; 290:105; consent of department head.
290:226. Consultation Skills - 3 hrs.
Stresses principles, procedures, and process of consultation with emphasis on developing consultation skills. Prerequisites: 290:205 or 290:254; consent of department head.

## 290:227. Counseling Theory - 3 hrs.

Study of each of the predominant counseling theories. Prerequisites: 290:105; consent of department head.

## 290:228. Assessment Techniques in Counseling - 3 hrs .

Assessment and appraisal procedures of individuals and groups. Primary focus on the understanding and use of standardized and non-standardized tests, inventories, observations, and case data for diagnosis in counseling. Prerequisites: 290:103; consent of department head.

## 290:240. Intervention Strategies - 3 hrs.

Integration of counseling theory and counseling process in the design and implementation of strategies for resolving client problems. Prerequisites: 290:205 or 290:254; 290:227; consent of department head.

## 290:241. Treatment Procedures in Mental Health Counsellng - 3 hrs.

Emphasis on the diagnosis of psychopathology and corresponding treatment procedures. Covers etiology, diagnosis, treatment, and the prevention of mental and emotional disorders and dysfunctional behavior. Prerequisites: 290:103; 290:105; 290:205; 290:224; 290:227; and 200:235 or 400:142; consent of department head.
290:245. Advanced Treatment Procedures in Mental Health Counseling -3 hrs.
Continuation and extension of 290:241. Covers the etiology, diagnosis, and treatment planning for a variety of mental disorders not covered in 290:241, with specific emphasis on case management and treatment plan documentation. Prerequisites: 290:241; consent of department head.

## 290:250. Family Counseling - 3 hrs.

Emphasis on a family systems perspective. Key components include history and theoretical foundations, family developmental life cycles, identification of functional/dysfunctional family systems, and a survey of interventions. Prerequisites: 290:105; 290:227 (highly recommended); consent of deparment head.

## 290:254. Counseling Children and Adolescents - 3 hrs.

Addresses normal and abnormal child/adolescent development, problem conceptualization from an individual as well as a systems-based perspective, and development of advanced-level counseling skills with emphasis on age-appropriate interventions. Lab practice and actual counseling experience with young clients. Prerequisites: 290:105; consent of department head.

## 290:256. Multicultural Counseling - 3 hrs.

Emphasizes examination of personal attitudes, perceptions, and behaviors regarding women, ethnic minorities, elderly, gays and lesbians, and persons with disabilities. Examines concepts such as oppression. Increases understanding of counseling theories and techniques within a multicultural paradigm. Prerequisites: 290:103; 290:224; 290:227; consent of department head.

## 290:260. Advanced Family Counseling - 3 hrs.

In-depth study of selected theories of family counseling and their application in work settings. Major emphasis on treatment procedures, the integration of theory and practice, and working within the mental health care system. Prerequisite: 290:250 or consent of instructor.
290:262. Intervention and Prevention with Children, Adolescents, and Parents -3 hrs.
Emphasis on skill development in applying developmentally-appropriate prevention and intervention strategies with children and adolescents. Working with parents and "at-risk" youth will also be addressed. Lab practice and actual counseling experience with youth/parents. Prerequisites: 290:105; 290:254; consent of department head.
290:285. Readings in Counseling - 1-3 hrs. 290:289. Seminar in Counseling - $\mathbf{1 - 3} \mathbf{h r s}$.
Special topics as indicated in the Schedule of Classes.
290:290. Practicum in Counseling - 3 hrs.
First-level intensive experience designed to further develop counseling skills. Offered on credit/no credit basis only. Prerequisites for School Counseling: 290:103; 290:105; 290:220; 290:224; 290:227; 290:250 (recommended); 290:254; 290:262 (highly recommended); consent of department head. Or for Counseling/Mental Health: 290:103; 290:105; 290:205; 290:220; 290:224; 290:227; 290:250 (recommended); 200:235 or 400:142; consent of department head.

## 290:291. Internship - 3-6 hrs.

Advanced intensive experience designed to integrate counseling skills in a work setting. Offered on credit/no credit basis only. Prerequisites: 290:290; consent of department head.
290:299. Resoarch.

## 290:327. Advanced Counseling Theories - 3 hrs.

In-depth study of selected major theories of counseling. Major emphasis on development of personal theory and integration of theory and practice in counseling.
290:385. Readings in Counseling - 1-3 hrs.
Individualized list of selected readings in an area of emphasis, as determined by instructor and student.

## 290:389. Seminar in Counseling - 1-3 hrs.

Offered on special topics as determined and scheduled by the department.
290:391. Advanced Internship in Counseling - 1-6 hrs.
Intensive doctoral-level experience designed to integrate skills in the work setting. Prerequisite: consent of advisor.
290:397. Advanced Practicum in Counseling - 3 hrs.
Advanced supervised experience to further develop counseling skills. Prerequisite: consent of instructor.
290:398. Ressarch in Counseling - $1-3$ hrs.
Library or data-based research on selected topics of special interest. Not applicable to dissertation credit.

## 300 Safety Education

## 300:130(g). Driver and Traffic Safety 1 - 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.
300:131(g). Driver and Traffic Safety II - 3 hrs.
Classroom and in-the-car techniques of imparting instruction to high school students taking driver education. Prerequisite: junior standing.
300:132(g). Directing the Safoty Program - 2 hrs.
Organization and administration of safety programs through the entire school system. Prerequisite: junior standing.
300:140(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
300:192(g). Experience in Safety Education - $2-4 \mathrm{hrs}$.
Offered in various specialized fields; may be repeated once for credit in a different area. Maximum of 8 hours credit. Prerequisite: junior standing.

## 310 Design, Family and Consumer Sciences

310:010. Cultural Perspectives of Dress - 2 hrs.
Systematic approach to visual analysis of the dressed body. Case studies used to examine cross-cultural and gender-based differences in how the dressed body is interpreted and aesthetically evaluated.

## 310:012. Textile and Apparel Design Foundations - $\mathbf{3}$ hrs.

Investigation of elements and principles of design as they apply to textiles and apparel.
310:013. Introduction to Textile Materials - 3 hrs .
Fundamentals of textiles as related to the production, sale, and use of apparel, interiors, and other products. Laboratory experiences related to the identification of fibers, yarns, and fabrics. (Formerly 310:110.)
310:014. Apparel Evaluation - 3 hrs .
Application and analysis of methods and techniques used to assemble apparel and evaluate ready-to-wear quality. Prerequisite: 310:013.
310:015. Multicultural Aspects of Apparel Design - 3 hrs.
Cultural, aesthetic, and technical aspects of apparel design and assembly from a multicultural perspective.
310:020. Introduction to the Textile and Apparel Industry - 3 hrs.
Overview of the structure of the textile and apparel industry.
310:030. Basic Nutrition - 2 hrs.
Study of nutrition in relation to growth development and maintenance of the body. No credit for 310:030 if credit previously earned in 310:032 or 310:037.

## 310:031. Nutrition for Early Childheod Education - 2 hrs.

Study of the role of nutrition in the growth and development of young children, and the effect of nutrition on learning processes. Focus on nutritional needs of young children as well as the incorporation of nutrition education into the curriculum in early childhood education. Early Childhood Education majors only.
310:032. Fundamentals of Nutrition - 2-3 hrs.
Needs and functions of food nutrients for growth and maintenance of health through the life cycle. No credit for 310:032 if credit previously earned in

310:030 or 310:037. Prerequisite: 420:050 or 860:044 or 860:061 or equivalent of consent of instructor.
310:035. Principles of Food Science - 3 hrs.
Presentation of scientific concepts for a basis of understanding food as a complea physical, biological, and chemical system. Emphasis on reasons for procedurea and phenomena encountered. Prerequisite: $860: 044$ or $860: 061$ or consent af instructor.

## 310:037. 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 needss application to dietary patterns of selected individuals and ethnic groups. Prerequisite: 860:044 or 860:061 or equivalent.

## 310:052. 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.

## 310:053. Human Identity and Relationships - $\mathbf{3}$ hrs.

Use of social science theories and research to understand the physiological, psychological, and socio-cultural influences on human identity, development of self, and intexpersonal relationships. Emphasis on methodologies for obtaining valid research information and application of such information to facilitating positive individual growth and effective interpersonal relationships.
310:054. Decision Making in Family Systems - 3 hrs.
Integrative approsch to the human environment relative to management, clothing and housing. Analysis of the acquisition, use and allocation of resources, decision making and design regarding aesthetic, behavioral, and economic issues. No credit for 310:054 if credit previously earned in 310:010, 310:065, or 310:070.
310:055. Human Growth and Development - 3 hrs.
Psychological, cognitive, social, and physiological factors affecting the human developmental pattern from conception through old age. Prerequisite: 400:008 or consent of instructor.

## 310:056. Introduction to Family Services - 3 hrs.

Survey of the possible career settings, roles, and responsibilities of the family services professional. Includes observation and participation in appropriate field placements.

## 310:057. 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.

## 310:061. Design Foundations - 3 hrs.

Introduction to design elements and principles and their application to applied and fine arts. Attention to materials techniques and evaluation. Development of individual perception of design processes within interior design context.
310:063. Drafting 1 - 3 hrs.
Introduction to architectural drafting; emphasis on drawing as a visual communication medium in the field of interior design. Development of drafting skills as a graphic language. Prerequisite or corequisite: 310:061.
3100064 . Drafting II - 3 hrs.
Continuation of 310:063 with an emphasis on 3 -dimensional graphic representation in the field of interior design. Prerequisite: 310:063.
310:065. Introduction to Interior Design - 3 hrs.
Survey of the social, functional, and aesthetic aspects of choosing and furnishing a residential environment. No credit for Interior Design majors if taken after 310:063.

## 310:066. Design I - 4 hrs.

Design and presentation skills developed through studio experiences in various media. Emphasis on perceptual and conceptual development in two and three dimensions. Prerequisite or corequisite: 310:064.

## 310:067. History of Interiors I- 3 hrs.

Styles of furnishings, interiors, and architecture from antiquity to the mid-19th century.
310:068. 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: 310:067.

## 310:070. Management of Family Resources - $\mathbf{3}$ 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: sophomore standing.

310:075. Computer Applications for Interior Design - 3 hrs.
Computer-aided design and drafting using AutoCAD software. Prerequisite or corequisite: 310:064; consent of instructor.
310:100. Computer Applications for the Textlle and Apparel Industry -
3 hrs.
Industry-based software, U4ia (Euphoria), applied to the areas of product development, sourcing, manufacturing, marketing, advertising, sales, and retailing. Software uses raster, vector, and texture-mapping tools. Prerequisites: 150:080 (for business minors) or 810:021 (for non-business minors).
310:106. Professional Development: 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: junior standing.
310:107. Professional Practice of Nutrition and Food Science - 1 hr .
Survey of employment opportunities; self assessment, professional ethics, inter-
view techniques and preparation for the pre-professional experience. Prerequisites: senior standing; consent of instructor.
310:114(g). Socio-Psychological Aspects of Textiles and Apparel - 3 hrs.
Textiles and apparel in relation to culture, society, and the individual. Survey and application of selected theorics. Prerequisite: junior standing.
310:115(g). Apparel Buying and Merchandising - 3 hrs.
Application of merchandising concepts and procedures for planning, developing, sourcing, and presenting apparel product lines for identified target markets with regard to pricing, assorting, styling, and timing. Prerequisite: junior standing.
310:116. History of Costume - 3 hrs.
Costume in the western world from ancient times to the present.
310:121. 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.
310:122. Product Development and Planning -3 hrs .
Emphasis on technical aspects of the product development process including: creating the pattern by apparel design methods of flat pattern, draping, and drafting; pattern grading sourcing materials; costing; and production planning. Prerequisite: 310:014.
310:123. Textile Structures - 3 hrs .
Structural and functional aspects of textile yarns and fabrics. Manufacturing techuiques are related to physical properties of yarns and fabrics used in apparel and other end uses, with a focus on textile and apparel product development. Prerequisite: 310:013.
310:124. Quality Assurance for Textile Materials - 3 hrs.
Focus on quality issues for textile materials used in apparel and other end uses. Quality theory is discussed, as well as textile material performance expectations and methods of predicting performance through physical testing. Prerequisite: 310:013.
310:125. Design Il - 4 hrs.
Interior design materials, structural components, building and mechanical systems, and lighting design. Prerequisite or corequisite: 310:066.
310:126. Design III - 4 hrs.
Residential design. Programming, space planning, life safety issues, conceptualization, problem solving, and presentation. Includes special population and purposes. Prerequisite: 310:125. Corequisite: 310:129.
310:127. Design IV - 4 hrs.
Non-residential. Programming, space planning, life safety issues, conceptualization, problem solving, and presentation. Includes special populations and purposes. Prerequisite: 310:126.

## 310:128. Design $\mathbf{V}-4 \mathrm{hrs}$.

Complex residential/non-residential design problems incorporating applied research methods. Prerequisite: 310:127.

## 310:129. Interior Design Standards $\mathbf{- 2}$ hrs.

Standards set by the profession for entry-level positions in Interior Design. Corequisite: 310:126.

## 310:130(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: $310: 030$ or 310:032 or 310:037; junior standing.

310:131. Community Nutrition - 2 hrs.
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 observations in a community nutrition program in partial fulfillment of course requirements. Prerequisites: 310:030 or 310:032 or 310:037; junior standing.
310:137(g). Advanced Nutrition - 3 hrs.
Physiochemical role of nutrients in metabolic pathways; their integration and regulation; basis for determining nutrient requirements and dietary standards. Prerequisites: 310:037; 840:102; or consent of instructor; junior standing.
310:139(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.
310:140(g). Food Product Development and Sensory Research Laboratory - 2 hrs.
Laboratory for $310: 144$. Prerequisites: $130: 101 ; 310: 035 ; 310: 146 ; 840: 033$; 920:024 or consent of instructor; junior standing. Corequisite: 310:144.
310:141. Undergraduate Research in Nutrition and Food Science - 1-2 hrs.
Study of research methodology, data analysis and evaluation in dietetics, nutrition and food science. Prerequisites: junior standing; consent of instructor.
310:142(g). Food Research Techniques - 3 hrs.
Function of ingredients in various food systems, factors affecting quality of food products, individual experimentation and the relationship to research literature, writing scientific reports, and use and care of scientific equipment. Prerequisites: 310:035; 310:146 or consent of instructor, junior standing.
$310: 143(\mathrm{~g})$. Origin of Food and Foodways - 3 hrs.
History of food and its influence on culture and the food-related behavior of individuals, families, communities and the world; cultural and national food patterns explored. Prerequisite: junior standing.
310:144(g). Food Product Development and Sensory Research $\mathbf{- 2} \mathbf{~ h r s . ~}$ Fundamentals of art, science and technology applied to research development and marketing of new food product concepts. Laws, regulations, additives, labeling and packaging. Principles and methodology of sensory evaluation of food; application of methods in food product development. Prerequisite: junior standing. Corequisite: 310:140.
310:145(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: $150: 153$; junior standing.
310:146(g). Advanced Food Sclence - 3 hrs.
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: 310:037; 860:063 or 860:120; or consent of instructor, junior standing.
310:148. Problems in Nutrition and Food Science $-1 \mathbf{4}$ hrs.
(1) Food Science; (2) Nutrition. Prerequisites for Nutrition section: junior standing; consent of instructor.
310:149(g). Nutrition in Disease - 4 hrs.
Role of nutrition in the prevention and treatment of disease. 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: $310: 130$ or $310: 137$; 840:102; junior standing. Prerequisite or corequisite: 860:154.
$\mathbf{3 1 0 : 1 5 2 ( g ) . ~ F a m i l y ~ L i f e ~ a n d ~ H u m a n ~ S e x u a l i t y ~ - ~} 3$ hrs.
Exploration of 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. Prerequisites: 310:057 or consent of instructor, junior standing.

## 310:153(g). Famlly Redationships 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). Prerequisiter: 310:052 or consent of instructor; junior standing.
310:154(g). Family Perspectlves in Adulthood and Aging - 3 hrs.
Theories and developmental patterns in carly, middle, and late adulthood. Family interaction patterns in adulthood from biological, social, and emotional perspectives. Prerequisites: $200: 030$ or $310: 055$ or $\mathbf{4 0 0 : 1 2 0 ;}$; junior standing.

## 310 Design, Family and Consumer Sciences/

330 Industrial Technology

## 310:155(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: 200:030 or 310:055 or $400: 120$; junior standing.

## 310:156. Professional Practice in Family Services - $\mathbf{3}$ hrs.

Professional roles and responsibilities; ethical decisions; functioning in diverse cul-tural/socio-economic settings. Introduction to administering and funding agency programs. Preparation for pre-professional experiences. For Family Services majors only. Prerequisite or corequisite: 310:153 or consent of instructor.

## 310:157(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: 310:052; 310:057; junior standing consent of instructor.
310:164. Professional Practice of Interior Design - 3 hrs.
Profession and practice of Interior Design. Development of credentials and portfolio for job market entry. Prerequisite or corequisite: 310:128.
310:177(g). The American Consumer - 3 hrs.
Analytical approach to the consumption of durables, goods, services and housing; developing competencies for consumer decisions and actions in a global economy. Prerequisite: junior standing.

## $310: 184(\mathrm{~g})$. Topics $-1-3 \mathrm{hrs}$.

Selected topice 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 6 hours but not in the same topic. Prerequisite: junior standing. 310:185. Professional Development: Textille and Apparel - 2 hrs. Serves as the program capstone experience. Students study leadership skills, professional ethics, as well as prepare for pre-professional experience. Course culminates with a large-scale group experiential learning project conducted in the field. Prerequisites: 310:014; 310:115; 310:121. (Formerly 310:108.)
310:191(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.

Sec. 1 Textiles and Apparel
Sec. 2 Dietetics
Sec. 3 Interior Design
Sec. 4 Family Services
310:192(g). Research in Design, Family and Consumer Sciences - 1-3 hrs.
Conduct supervised research and/or scholarly project. Prerequisites: Research Methods course; junior standing consent of instructor.

Sec. 1 Textiles and Apparel
Sec. 2 Dietetics
Sec. 3 Interior Design
Sec. 4 Family Services
$\mathbf{3 1 0 : 1 9 4}(\mathrm{g})$. Problems in Deslgn, Family and Consumar Sclences $\mathbf{- 1 - 4} \mathrm{hrs}$.
Individual topic areas of in-depth study. Prerequisites: junior standing; consent of instructor.

Sec. 1 Textiles and Apparel
Sec. 2 Dietetics
Sec. 3 Interior Design
Sec. 4 Family Services

## 310:195. 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. Prerequisites: $310: 153$; consent of instructor.

Sec. 1. Textile and Apparel - 4 hrs. Prerequisite: all major work and business courses must be completed.
Sec. 2. Nutrition and Food Science -4 hrs.
Sec. 3. Interior Design - 4 hrs. Prerequisite: all course work must be completed.
Sec. 4. Pamily Services - 9 hrs. Stipulate a minimum of 400 hours of pre-professional experience plus seminar. Prerequisite: 310:156.
310:198. Independent Study.
310:199. Study Tour - 2-3 hrs.
310:288. Problems in Design, Family and Consumer Sciences $\mathbf{- 1 - 4} \mathrm{hrs}$.
Various areas according to students' needs: (1) Human Development and Family Life; (2) Nutrition and Food Science; (3) Textile and Apparel; (4) Interior Design; (5) Management and Consumer Education.

## 330 Industrial Technology

330:008. Materials and Processes of Manufacturing - 4 hrs. Entry level materials and processes used in modern manufacturing. 330:017. Computer-Alded Design and Drafting - 3 hrs.
Fundamental concepts and procedures of producing graphics applicable to design and/or drafting in such areas as art, architecture, cartography, communix cations, electronics, manufacturing, and interior planning. Lab activities usind CAD software on microcomputer systems.

## 330:018. Construction Resources - 3 hrs .

Examination of the resources commonly utilized in the construction industry 'money, materials, methods, processes, personnel- -and their management.
330:019. Introduction to Technology Education - 2 hrs.
Historical background, contemporary approaches, trends, and the role of tech nology education in the total school curriculum, and exploration of career goale
330:020. Communication Systems -3 hrs .
Industrial communications techniques, tools, and management strategies associ千 ated with design and delivery of messages in organizations.
330:022. Communiation Technology -4 hrs.
Survey of the tools, materials, and processes used for the production and repron duction of visual images and multimedia. This encompasses tectunical drawinge printing/publishing, multimedia, and Internet technology.
330:024. Technical Drawing and Design I -3 hrs.
Sketching, geometric construction, dimensioning, multiview projection, pictori, als, sections, auxiliary views. Prerequisite: 330:017.
330:025. Construction Graphics - 3 hrs.
Analysis of the techniques utilized in the designing and developing of specificay tions and working drawings for commercial construction. Prerequisite or corequisite: 330:018.
330:026. Technical Drawing and Design II- 3 hrs.
Engineering design process, descriptive geometry, intersections, developmentay fasteners, fits and tolerances, gears and cams, and other application drawinga, Prerequisites: 330:008; 330:017; 330:024.
330:027. Construction Materials - 3 hrs.
Materials of construction; their properties, manufacture, characteristics and application. Prerequisites: $330: 025 ; 800: 060$.
330:033. Construction Surveying - 3 hrs.
Land, topographic, power, pipeline, highway and municipal surveying. Analysia of coordinate geometry, transverse computation, horizontal, vertical and spiral curve design and layout. Prerequisites: 330:018; 330:025; 800:043 or $800: 046$; 800:044 or equivalent; 800:060.

## 330:036. Power Technology - 3 hrs.

Basic applications of specific principles of energy and power systems. Demonstrations of instrumentation, procedures analysis and reporting.
330:037. DC and AC Theory - 4 hrs.
Fundamental DC/AC circuits, current and voltage laws, circuit analysis including series/parallel circuits, inductors, capacitors, transformers, power calculations, frequency response and passive filters, circuit simulation, troubleshooting techniques. Prerequisite: 800:060.
330:038. Industrial Electricity - 3 hrs .
Study of AC concepts as associated with motors, generators, transformers, conltrol devices, and electrical distribution systems. Prerequisite: 330:037 or 880:056.
330:040. Fundamentals of Metal Casting Engineering Technology - 2 hrs.
Introduction to foundry technologies and careers. Evolution, systems, research and development, and planning/control of foundry production. Evaluation of all aspects of foundry operations including melting, molding, casting quality, and supervision.
330:045. Construction Law and Documentation - 3 hrs.
Examination of construction contract principles, construction documents and the component parts of law affecting construction operations. Prerequisite: 330:025.

## 330:055. Graphic Arts Technology - 4 hrs.

Concepts and practices of graphic communications including lithographic, screen, gravure, and relief printing processes. Publication design/layout, image assembly, image transfer, finishing and binding. Prerequisite: $330: 022$ or consent of instructor.

330:060. Fundamentals of Automated Manufacturing - 3 hrs .
Flexible and fixed automation systems: transfer lines, CNC programming, robotics and FMS's.
330:065. The World of Technology - 3-4 hrs.
Exploration of technologies affecting society, people, and careers; analysis of technologies in terms of costs, benefits, skills and knowledge required, and options for participation as contributor, consumer and citizen; communication, transportation, medical, agricultural, energy, and/or workplace systems. Discussion, 3 periods; lab, 2 periods. May be taken without lab for 3 credit hours.
330:070. Desktop Compostion - 3 hrs.
Design and layout of publications by computer, including typography, graphics, color, system configurations and industrial applications.
330:100. Undergraduate Research in Construction Management - 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: $330: 154 ; 330: 185$.
330:101(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.
330:102. Graphic Communications Seminar - 1 hr.
Study of contemporary graphic communications issues not available in other technical and professional courses in the graphic communications major and minor. May be repeated once. Prerequisites: 330:020; 330:022; 330:055; 330:070; junior standing.
330:106(g). Geometric Dimensioning, Tolerancing and Metrology - 3
hrs.
Geometric conformance and tolerancing theory and application pertaining to ANSI Y14.5M-1982. Prerequisites: 330:024; junior standing.
330:112. Industrial Research and Development I - 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.
330:113(g). Tool Design - 3 hrs .
Integrated treatment of tool design, specification and application by the use of standard tooling data. Prerequisites: 330:008; 330:024; 330:170 or 330:172; junior standing.
330:114. 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: 330:008; 330:017 or 330:022.
330:119(g). Computer Applications in Industrial Technology - 3 hrs.
Review and evaluation of selected software relative to Industrial Technology. Proficiency in computer applications, electronic communications, web-based resources and industrial applications for computers for specific disciplines. Prerequisite: junior standing.
330:120. 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 330:019; junior standing.

## 330:121 (g). Manufacturing Technology Systems -3 hrs.

Contemporary concepts and applications of machine process control, operations, fabrication, and processing of manufacturing materials. Equipment maintenance, inventory, safety principles and practices, and material handling. Prerequisites: 330:008; 330:060; junior standing.
330:122(g). Advanced Computer-Alded Drafting and Design (CADD) 3 hrs.
Design and development of three-dimensional solid models, productivity techniques, system customization, and translation of graphic data bases. Prerequisites: 330:008; 330:017; 330:024; junior standing.
330:124. Mechanical Systems in Construction - 3 hrs.
Basic principles, methods, and equipment pertaining to building mechanical systems (heating, cooling, ventilation and plumbing) related to human health and comfort. Prerequisites: 330:027; 330:045.

330:125. Commercial and Heavy/Highway Construction - 3 hrs.
Examination of systems and operational procedures used to construct commercial, and heavy and highway projects. Prerequisites: 120:030; 330:033; 330:045. (Formerly 330:050.)

## 330:126. Applied Thermodynamics - 3 hrs.

Concepts of thermodynamics and applications. Prerequisite: $800: 048$ or 800:060.
330:127(g). Electron Microscopy and Applications - 3 hrs .
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: 870:130 or 880:056; junior standing.
330:128. Electrical Construction Materials and Methods - $\mathbf{3}$ hrs.
Basic principles of electricity, materials. Methods of electrical system designs in building construction. Prerequisites: 330:027; 330:045.
330:129. Mechanical Power Systems - 3 hrs.
Development of concepts of mechanical power systems in detail through study of industrial applications. Prerequisite: $\mathbf{3 3 0 : 0 3 6}$ or $880: 054$ or consent of instructor.
330:130(g). Manufacturing Processes for Metals $\mathbf{- 3}$ hrs.
Precision measurement, welding, forming and fabrication of metals. Prerequisites: 330:008; junior standing.
330:132(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: 330:008; 860:020 or 860:044; junior standing.
330:134(g). Molding Practices in Metal Casting - 3 hrs.
Study of molding practices used in contemporary metal casting. Prerequisites: 330:008; 330:040; junior standing.
330:136(g). Melting Practices in Metal Casting - 3 hrs.
Advanced course in the principles of metal melting systems including selection of furnace types, charge materiale, refractory lining applications, energy recovery and environmental considerations. Prerequisites: 330:040; 330:132; junior standing.
$\mathbf{3 3 0 : 1 3 7}(\mathrm{g})$. Tooling Practices in Metal Casting - $\mathbf{3}$ hrs.
Advanced course in the principles of foundry tooling design including selection of pattern materials, rapid prototype development techniques, advanced polymer materials, and design of permanent mold tooling, as well as basic core box production techniques. Prerequisites: $330: 040 ; 330: 134 ;$ junior standing.
330:139. Electronk Circuit and Board Development - 3 hrs.
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. Prerequisite: 330:152 or consent of instructor.
330:141 (g). Foundry Research Practicum - 3 hrs.
Advanced course in foundry operations involving the UNI-MCC foundry in a production mode. Development of a casting, construction of tooling, prototype casting and production casting run with integration of foundry quality, and supervision. Prerequisites: 330:134; 330:136; 330:137; junior standing.

## 330:142(g). Statistical Process Control - $\mathbf{3}$ hrs.

Quality concepts and problem-solving techniques associated with statistical process control including control charts. Management philosophy for successful application of SPC. Prerequisites: 800:046 or 800:072 or consent of instructor, junior standing.

## 330:143(g). Managing Manufacturing Systams - 3 hrs.

Manufacturing functions related to forecasting, project planning, operations cost analysis, plant layout, process planning and control, inventory control, and quality control. Prerequisites: 800:072 or $800: 172$; junior standing.

## 330:145(g). Methods Design and Work Measurement - 3 hrs.

Emphasis on the production functions related to methods study, work measurement and work sampling. Prerequisites: $330: 017 ; 330: 130$ or $330: 177$; junior standing.
330:146(g). Advanced Numerical Control Systems - 3 hrs.
Programming machining centers and turning centers: helical interpolation, polar coordinates and subroutines. Prerequisites: 330:017; 330:060; junior standing.
330:147(g). Computer Aided Manufacturing - 3 hrs.
CAM application programs to create part geometry, tool paths, machining parameters, and post process NC code. Prerequisites: 330:146; junior standing.
330:148(g). Machine Design - 3 hrs.
Principles of design for machine elements, failure analysis, clutches, brakes, dynamic loads, and balancing. Prerequisites: 330:008; 330:017; 330:170; junior standing.

330:149. Construction Estimating - 3 hrs.
Construction cost analysis techniques for estimating materials, labor, equipment, and subcontracting costs in commercial building construction. Prerequisites: $330: 124 ; 330: 125$; junior standing.
330:150(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: $330: 055$; junior standing.
330:151(g). Computer Integrated Manufacturing - 3 hrs.
Fundamentals of product processes and operations, computers in manufacturing, computer-aided engineering, computer-aided production, integration of CAD/CAM technologies, computer-aided business, manufacturing systems integration of techniques and strategies. Prerequisites: 330:147 or consent of instructor, junior standing.
330:152(g). Industrial Electronics - 3 hrs.
Study of solid state devices and their use with other electronic components to make electronic circuits and systems for applications in industry. Prerequisites: 330:037; junior standing.

## 330:153(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: $330: 154$; junior standing.
330:154. Computerized Construction Estimating - 3 hrs.
Utilization of computer software and advanced estimating techniques. Prerequisites: 330:128; 330:149; junior standing.
330:156(g). Digital Electronics - 3 hrs .
Basic logic gates, fundamental digital circuits, and the tools and techniques used for analysis and application of digital circuits. Prerequisites: 330:152 or consent of instructor, junior standing.
330:157(g). Microcomputer Architecture and Instruction Set - 3 hrs.
Microprocessors, assembly language programming, peripheral devices that constitute a functioning microcomputer. Software design and development, inputoutput devices, and interfacing included. Prerequisites: $330: 156$ or consent of instructor, junior standing.

## 330:158(g). Uthographic Technology - 3 hrs .

Practices in multiple color stripping and platemaking, and operation of lithographic, single-color presses. In addition, finishing and binding, flexography, and gravure are covered. Prerequisites: 330:022; 330:055; junior standing.
330:160(g). Instrumentation and Interfacing - 3 hrs.
Sensors and transducers used in process control; measuring techniques, physical parameters, sensor operation, transducers, operational amplifiers, analog-digital and digital-analog converters, interfacing to computers. Prerequisites: 880:056 or 880:131; junior standing. Prerequisite or corequisite: 330:156.
330:161 (g). Photoconversion Processes - 3 hrs.
Intensive study of color theory, color separation, electronic copy preparation, spreads and chokes, flat preparation and color proofing. Industry practices closely simulated. Prerequisites: 330:055; 330:070; junior standing.
330:162(g). Applled 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: 330:036 or 880:054; junior standing.
330:163(g). Advanced Copy Preparation - 3 hrs.
Design, layout, and management of complex color publications. Prerequisites: 330:055; 330:070; junior standing
330:164(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: 330:156; junior standing.
330:165(g). Introduction to Integrated Circuit Technology -3 hrs.
Introduction to the design and fabrication of integrated circuits. Prerequisites: 330:152; 330:156; junior standing.

## 330:166(g). Power Systems Analysis -3 hrs.

Analyais, modeling, simulation and operation of electrical utility, commercial, and industrial power systems. Voltage-drop calculations, voltage regulation, system protection, faults and harmonics. Prerequisites: 330:037; 330:038; 880:054; junior standing.

330:167. Industrial Applications of Power Electronics (IAPE) - 3 hrs.
Theory and application of high-power solid-state electronics for control and conversion of electrical poser devices. Single and 3-phase rectifiers, invertery choppers, AC controllers, industrial applications. Prerequisites: 330:126 and 330:152 or consent of instructor, 880:054 or 880:130; junior standing.
330:168(g). Innovative Instructional Strategies - 3 hrs.
Examination and cultivation of activities as well as developments of innovatin techniques and strategies for instruction in technical programs. A determinatiot of necessary criteria to analyze instruction will also be considered. Prerequisiu junior standing.

## 330:169. Applied Photography - 4 hrs.

Photographic fundamentals including film and digital systems. Prerequisibe 330:020 or consent of instructor.

## 330:170. Statics and Strength of Materials - $\mathbf{3}$ hrs.

Testing, evaluation, and reporting of material characteristics and strength, and probable usefulness in the construction of products. Prerequisites: 800:048 or 800:060; 880:054; or consent of instructor.
330:171. Technical Work Experience - 2 hrs.
Supervised internship to gain practical occupational experience in the specialt area of approval. May be repeated once. Offered on credit/no credit basis only") Prerequisite: 1000 clock hours of approved work experience.
330:172(g). Industrial Materials - 3 hrs.
Principles and properties of metals, ceramics, polymers and composited Prerequisites: 330:008; 860:020 or 860:044; junior standing.
330:173(g). Construction Management - 3 hrs.
Management concepts in construction: business methods, finance, decisio making, labor relations, marketing, quality control, marketing and computé applications. Analysis of office and field problems. Prerequisites: 330:154 junior standing.
330:174. EMST Research and Development (Phase I) $\mathbf{- 1} \mathbf{~ h r}$.
Methods of information acquisition, processing and presentation for the conceptualization of a problem in power technology for individual or group investi gation. Prerequisites: junior standing 12 hours of 100 -level courses from the required technical core in the Electro-Mechanical Systems Major, consent of instructor.
330:175. Structural Analysis in Construction - 3 hrs.
Structural analysis of wood, concrete, steel and composite building systems. Emphasis on topics such as the design of formwork and scaffolding Prerequisites: $330: 027 ; 330: 033 ; 330: 170$; junior standing.

## 330:176. EMST Research and Development (Phase II) - $\mathbf{3}$ hrs.

Development of the problem identified in the P.L.U.S. Methodology and Conceptualization phase through the developed protorype and presentation of the investigative results. Prerequisite: $330: 174$.
330:177(g). Advanced Manufacturing Processes - 3 hrs.
Advanced manufacturing processes in metals, polymers, composites and ceramics. Prerequisites: 330:008 or consent of instructor, junior standing.
330:178(g). Contemporary Instruction in Technology Education - 3 hrs . Inquiry into recent applications in instructional strategies and content. Applications with research and development, and interdisciplinary activities. Cultivate pertinent skills in team planning, collaborations, assessment and safety interactions. Discussion, 2 hours; lab, 2 hours. Prerequisites: $330: 190$ or consent of instructor; junior standing.
330:180. Orientation to Industrial Vocational-Technical Training - 2 hrs.
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.
$\mathbf{3 3 0 : 1 8 1 ( g ) . ~ I n s t r u c t i o n a l ~ D e s i g n ~ f o r ~ T e c h n i c a l ~ E d u c a t i o n ~ - ~} 2$ hrs.
Basic methods of identifying, analyzing, selecting, and organizing instructional content for vocational trade and technical programs. Prerequisite: junior standing.
330:182(g). Coordination of Industrial Education Programs -2 hrs.
Planning, organization, development, and teaching of cooperative or multioccupational programs in industrial education. Prerequisite: junior standing. 330:183. Fundamentals of Manufacturing Enginesing - 3 hrs.
Application of technical knowledge to solve industrial problems within the functional area of manufacturing engineering. Preparation for examination through the manufacturing Engineering Certification Institute. Prerequisite: junior standing or consent of instructor.

330:184(g). Electro-Mechanical Control Systems (EMCS) - 3 hrs.
Control theory and applications for modeling and design of controls in electrical, fluid flow, thermal, and mechanical systems; operating sequences; troubleshooting EMCS. Prerequisites: 330:126; 330:152; 880:054 or 880:130; junior standing.
330:185(g). Methods Improvement and Quality Control Assurance in
Construction - 3 hrs.
Analyais and evaluation of methods improvement techniques and management of quality assurance and quality control. Prerequisites: 330:128; 330:149; junior standing.
330:187(g). Applled Industrial Supervision and Management - 3 hrs . Investigation of industrial supervision and management; includes directed field study in industry. Prerequisites: 150:153 or 330:143 or consent of instructor; junior standing.
330:190(g). Methods of Teaching Technology Education - 3 hrs.
Contemporary methods of teaching technology education, detailed unit and lesson planning and microteaching experiences. Must complete with minimum grade of C prior to student teaching. Prerequisites: 330:019; 330:120; junior standing.
$\mathbf{3 3 0 : 1 9 1}(\mathrm{g})$. 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.
330:192(g). Non-Dentructive Evaluation of Materials/Scanning Electron
Mlcroscopy - 3 hrs.
Non-destructive evaluation of materials using such techniques as $x$-ray, gamma ray, liquid penetrant tests, magnetic particle, eddy currents, SEM, etc. Prerequisites: 330:132 or 330:172 or consent of instructor; junior standing.
330:193(g). Evaluation In Technical Instructional Programs $\mathbf{- 2} \mathbf{~ h r s}$.
Basic concepts and techniques for evaluating students and programs in vocation-al-technical education. Prerequisites: $330: 181$ or consent of department; junior standing
330:194(g). Graphic Arts Estimating and Management - 3 hrs.
Managing a graphic arts business, and the calculation of costs and pricing associated with the production of printed materials. Prerequisites: 330:055; junior standing.
330:195(g). Managing Technology Education Programs - 3 hrs.
Evaluation, planning, and reorganization of technology education classrooms and laboratories. Equipment maintenance. Planning a safety program. Prerequisites: 330:190; senior standing.

## 330:196(g). Industrial Safoty - 3 hrs.

Examination of the directives mandated by the Occupational Safety and Health Administration. Emphasis on developing and implementing a comprehensive safety and health program. Prerequisite: junior standing.
330:197. Industrial Research and Development II - 3 hrs.
Completion of the research project proposed in 330:112. Includes execution of a project management plan and presentation of results. Prerequisite: 330:112.
330:198. Independent Study.
330:200. 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.
330:228. Contemporary Theories in Technology - 3 hrs.
Analysis of developing technology, innovations, and practices in manufacturing and other industrial sectors related to industry.
330:240. Environmental Technology Processes - 3 hrs.
Advanced topics in environmental technology. Topics include water and wastewater treatment processes, hazardous materials treatment processes, air and water pollution abatement technologies and recycling and reuse treatment technologies.
330:245. Technology and Management of Waste Materials -3 hrs.
Advanced topics in technology and management of waste materials. Designed to examine the technology and the means to manage waste, waste problems and procesees. Study of the types of waste, relevant legislation and regulations, risk assessment and site remediation. Examination of technology and management alternatives such as source reduction, process modification, reuse and recyding, and current situations will be analyzed.
330:250. Technology of Productivity Improvement - $\mathbf{3}$ 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.

330:258. Quality Assurance - 3 hrs.
Evaluation of statistical techniques and control charts used for quality control in manufacturing applications. Emphases on inspection, acceptance procedures based on the reliability of products and organizational and managerial aspects of quality assurance. Lectures, 2 periods; lab, 2 periods.

## 330:260. Occupational Safaty and Health Principles - 3 hrs.

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 analyais and risk assessment, problem analysis and system safety techniques, labor/management safety committee. Prerequisite: $\mathbf{3 3 0 : 1 9 6}$ or consent of instructor.
330:270. Research Projects in Industrial Technology - $\mathbf{3}$ hrs.
Problems will involve investigation, application, demonstration, and reporting of research findings in specialized areas of industrial technology. May be repeated for a maximum of 9 semester hours. Prerequisite or corequisite: 330:292 or cossent of instructor.
330:271. Industrial Experience - 2-3 hrs.
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; consent of coordinator of graduate studies.
330:280. Curriculum Innovation and Organivation - $\mathbf{3}$ hrs.
Development of skills and techniques for successful installation, operation, and evaluation of a curriculum plan in industrial technology.
330:282. Industrial Technology Seminar - $1 \mathbf{h r}$.
Selected problems relating to production systems, communication systems, and power systems. May be repeated for up to a maximum of 4 semester hours of credit.

## 330:284. 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.
330:290. Tralning and Development in Industrial Technology - 3 hrs. 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.
330:291. Technical Program Development - 3 hrs.
Advanced methods of identifying, analyzing, selecting, and organizing instructional content for technical programs. Prerequisite: 330:181 or 330:280 or 330:290 or consent of instructor.

## 330:292. 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.
330:294. Technological Evolution and Innovation - 3 hrs .
Overview of technology, its chronological development and evolution. Interrelationships among disciplines and influence of contemporary technology on industry, culture, education, and society.
330:295. 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: 150:153 or 330:143; 330:187; or consent of instructor.

## 330:299. Research.

330:300. DIT Post Comprehensive Registration.
330:375. Historical Developments in Industrial Technology - $\mathbf{3}$ hrs.
Development of production systems, communication systems, and power systems and their influence on society and the environment. Prerequisite; consent of instructor.

## 330:376. Contemporary and Future Developments in Industrial <br> 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: 330:375.
330:377. Readings in Technology and Society - 3 hrs.
Current readings on technology and society, emphasis on analysis and discussion of the issues. Prerequisite: 330:376.
330:378. Technology, Ethles and the Technologist - 3 hrs .
Examination of the values and ethics of a technological society and the input of the technologist into the decision-making process of a technological organization. Prerequisites: 330:375; 330:376; 330:377; or consent of instructor.

## 330 Industrial Technology/350 School Library Media

 Studies/400 Psychology
## 330:388. Internshlp - 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.

## 330:399. Research (Doctoral Dissertation).

## 350 School Llbrary Media Studies

350:010. Llbrary Orientation - 1 hr .
Practical working knowledge of the library and its resources. Open to freshmen and sophomores.

## 350:1 12. Llbrary Information Sources - 1 hr .

Utilization of inderes, documents, and reference sources in specific subject areas; performance of information searches on apecialized topics. Open to juniors/seniors with declared majors. (Not open to School Library Media Studies majors and minors.)
350:113(g). Collection Management - 3 hrs.
Analysis and evaluation of information sources in school library media collections. Selection, acquisition, and maintenance of materials in print, non-print and computer-assisted formats. Intellectual freedom and copyright policy development. Prerequisite: junior standing.
350:115(g). Organization of Information - 3 hrs.
Application of standards of descriptive cataloging and MARC record for manual and automated systems and resource sharing. Examination of number and subject dassification schemes and application of Dewey Decimal Classification and appropriate subject headings for school library media catalogs. Adaptations of organizational principles for non-book print, non-print media, and computer-assisted information sources. Lecture, 2 hours; lab, 2 hours. Prerequisite: junior standing. 350:121 (g). Introduction to the School Library Medila Program - 3 hrs. Survey of school library media specialists, functions of the school library media center, national and state professional guidelines, ethical and legal issues; includes observation and participation in a selected school library media center. The portfolio created in this course becomes the condition for continuation in the School Library Media Studies Program, and must be taken in the first semester. Prerequisite: junior standing.

## 350:132(g). Llbrary Resources for Children - 3 hrs.

Collection management strategies as these relate to resources available in, and accessible from, elementary school library media centers, with a focus on resource-based teaching and learning. Role of the school library media specialist as information specialist. Prerequisite: junior standing.
350:1 34(g). Llbrary Resources for Young Adults - 3 hrs .
Collection management strategies as these relate to resources available in, and accessible from, secondary school library media centers, with a focus on resource-based teaching and learning. Role of the SLMS as information specialist. Prerequisite: junior standing.
350:223. School Llbrary Media Curriculum Development -3 hrs.
Consultant role of the school library media specialist in curriculum design. Study of curriculum frameworks and the curriculum integration of information process modela, PK-12. Prerequisites: 350:121; 350:132 or $350: 134$.
350:225. Administration of the School Llbrary Media Program - 3 hrs .
Management and leaderahip role of the school library media specialist, including organizational strategies, planning and policy development. Should be taken in the final semester of course work. Prerequisite: 350:121.
350:230. Library Automation Systems and Networks - 3 hrs.
Emphasis on computer-related systems and networks in schools and library media programs. Planning and implementing systems; on-line network requirements and uses. Prerequisites: 350:115; 350:132 or $350: 134 ; 350: 250$.
350:250. Reference Services and Information Rotrioval -3 hrs.
Collection management strategies as these relate to basic print and electronic reference resources. Introduction to question-negotiation, search strategies, and evaluation of information delivery/approsches and systems. Provision of reference services in school settings. Roles of the SLMS as information specialist and teacher. Lecture, 2 hourr; lab, 2 hours. Prerequisite: 350:115.
350:285. Individualised Reedings - $\mathbf{1 - 3}$ hrs.
Directed study of specific issue or problem based on student's needs or aspirations. Prerequisite: written consent of instructor.

## 350:289. Seminar - 2-3 hrs.

Critical assessment of the elements of school library media services at the build ing and system levels. Prerequisite: 350:223.

## 350:290. Practicum - 2-4 hrs.

Experience in the function and services of the school library media cented Prerequisite: written consent of instructor.
350:295. Research in Library and Information Science - $\mathbf{3}$ hrs.
Survey of basic research methodologies and critical evaluation of library media center research studies. The use of the research process to develop a draft proposal for research study, or project. Prerequisite: 350:250.
350:299. Research.
Focus on the process of completing the research study, project or thesis, Must t taken during the semester when the study is completed and may be repeate Student must enroll in at least 1 credit hour during the semester the study completed. Prerequisite: 350:295.

## 400 Psychology

400:008. Introduction to Psychology - 3 hrs.
Provides a foundation for psychological understanding. Course requires eithel (1) participation as a subject in psychological research, or (2) an alternatit acceptable to both the student and the department which provides a similar edver cational experience.
400:020. Community Service/Experiential Learning - 1-3 hrs.
Designed to allow students to explore potential career options via volunte opportunities. The enrolled students volunteer at an approved location from 3-9 hours per week, after completing whatever training is necessary through the specific agency. Serves as a valuable hands-on leaming experience. Prerequisiot 400:008; consent of instructor.
400:040. Special Topics in Social Psychology - 3 hrs.
Examination of a selected topic within the field of social paychology. Topic will vary each semester. Contemporary issues as they relate to social psychology will be targeted. Prerequisite: 400:008.

## 400:045. Research Methods - 4 hrs.

Introduction to fundamentals of psychological inquiry. Emphasis on experi mental research but all major approaches (correlational, field, clinical, phenome nological) considered. Prerequisite: 400:008; must be a declared Psycholog. major or minor by the starting date of the course.
400:049. Psychological Statistics - 4 hrs.
Introduction to the basic methods of collecting, organixing, and analyzing psyy chological data. Emphasis on statistical inference, e.g., $t$ tests, F tests, and select? ed non-paramerrics. Designed to provide the student with the basic statistich concepts and skills necessary for the laboratory and survey work and to provid adequate quantitative background for understanding psychological literaturc Prerequisites: 400:008; 400:045; one college-level mathematics course or consen, of instructor.
400:070. Psychology and Law - 3 hrs.
Addresses social psychological issues which deal specifically with the legal sye-1 tem. Topics covered include role of the psychologist as expert witness, eyewit ness identification, repressed and false memories, the insanity defense, jury deci sion-making and lie detection and confessions. Prerequisite: 400:008. (Same a) 980:070.)
400:104. Psychology of Adjustment - 3 hrs.
Study of "normal" adjustment problems encountered in our everyday liveo. Topics include: fear and anxiety, sleeping difficulties, sexual adjustment, seli control, interpersonal relations, adjustment at work, social adjustment, love marriage, and parenting. Prerequisite: 400:008.
400:106(g). Psychology of Human Differences - 3 hrs.
Nature and extent of human differences as they apply to an understanding of general psychology of the individual and group differences in a social settingPrerequiaites: $400: 008 ; 400: 045$; junior standing.
400:110. Psychology of Gender Differences - 3 hrs.
General overview of the nature and meaning of gender, gender roles and stereotypes; research on gender similarities and differences; gender development; and the effects of stereotypes and roles. Prerequisite: 400:008.
$400: 118(\mathrm{~g})$. Mistory and 5 ystems of Psychology -3 hrs.
History of psychological thinking with emphasis on developments since 1850. Prerequisites: one course in psychology or consent of department; junior standing.

## 400:120. Introduction to Developmental Psychology - 3 hrs.

Theory and research methods used in the study of development of organisms (especially human); developmental perspective as part of the process of psychological inquiry. Prerequisite: 400:008 or equivalent.
400:123. 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: 400:008 or equivalent.
400:125(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: 400:008; plus any one from $200: 100,310: 055,400: 120$, or equivalent of one of these, or consent of instructor, junior standing.

## 400:127(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: 400:008; junior standing; written consent of instructor.
400:130(g). Computer Programming for Psychological Applications - 3 hrs.
Programming and utilization of commercial software related to statistical analysis and real-time control problems common in psychological applications. Prerequisites: 400:008; 400:045; 400:049 or consent of instructor; junior standing. 400:142(g). Abnormal Psychology - 3 hrs.
Causes of abnormal behavior. Characteristics of major abnormalities. Classification of organic and functional disturbances. Prerequisites: 400:008; junior standing.

## $400: 149(\mathrm{~g})$. Principles of Prychological Testing -3 hrs.

Principles of design, construction, evaluation, and interpretation of psychological tests. No graduate credit for graduate students in paychology. Prerequinites: 400:008; 400:045; 400:049; junior standing.
400:150(g). Conditioning and Learning -3 hrs.
Basic concepts and processes in learning. Prerequisites: 400:008; 400:045; junior standing.
400:151(g). Memory and Language - 3 hrs.
Memory topics include theories of memory, memory deficits, and the role of memory in broader cognitive processes. Language topics include theories of language, biological bases of language; and comprehension and production of language. Prerequisites: 400:008; 400:045; junior standing.

## 400:152(g). Sensation and Perception - 3 hrs.

Sensory and perceptual processes and states with emphasis on visual experiences. Prerequisites: 400:008; $400: 045$; junior standing.
400:153(g). Cognitive Psychology - 3 hrs.
Study of human cognition: obtaining, representing, and organizing knowledge. Topics include pattern recognition, attention, imagery, concepts, and mechanistic assumptions underlying cognitive psychology. Prerequisites: 400:008; 400:045; junior standing.

## 400:154(g). Mealth Psychology - 3 hrs.

Overview of the contribution of social, personality, and clinical poychology to: a) an understanding of the psycho-social variables affecting physical illness and disease; b) the development of assessment and intervention strategies for comprehensive illness management and rehabilitation; and c) the promotion and maintenance of health-enhancing behavior. Prerequisites: 400:008; junior standing.
400:155. Physiological Paychology - 3 hrs.
Introduction to the subarea of psychology focusing on the biological bases of behavior, including research on sensory processes, eating, drinking and sexual behaviors, learning and memory, sleep and biorhythms, language, emotion and mood, and some mental illneses. Prerequisite: 400:008 or consent of instructor. 400:157(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: 400:008; 400:045; junior standing.
400:158(g). Organizatlonal 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: 400:008 or equivalent; junior standing.

## 400:160. Introductory Secial Psychology - 3 hrs.

Overview of social psychology. Includes social perception and cognition, attraction and liking, social influence, group dynamics, and attitude formation and change. Prerequisite: 400:008 or equivalent.
400:161. Psychology of Personality - 3 hrs.
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: 400:008.

## 400:162(g). Social Psychology - 3 hrs.

In-depth coverage of an applied topic in social psychology and the design of social psychology research. Students will be required to complete an individual project, which may or may not include the collection of data, in the topical area. Topice may include, but are not limited to, social cognition, emotion, adolescence, aggression, persuavion, altruistic and helping behavior, and group behavior. Prerequisites: 400:008; 400:045; 400:160; junior standing.
400:163(g). Special Topics in Developmental Psychology - 3 hrs.
Examination of selected topics within the field of developmental psychology viewed from various theoretical and empirical perspectives. Topics may vary each semester. Prerequisites: 400:008; 400:045; 400:120; junior standing.
400:166(g). Clínical Psychology - 3 hrs.
Contemporary practice of clinical psychology with emphasis on the theories and techniques of behavioral assessment and the management of pyychological disorders. Prerequisites: 400:008; junior standing.
400:167(g). Development of Gender in Cross-Cultural Perspective - 3 hrs.
Evolutionary, biological, psychological, cognitive, social, and cultural theories of gender development. Examples from Western and non-Western societies are reviewed in order to inform and transform theory. Prerequisites: 400:008 or 980:058 or 990:01 1 i junior standing. (Same as 980:167g and 990:167g.)
400:170(g). Drugs and Individual Behavier - 3 hrs.
Survey of the effects/side-effects of all categories of psychoactive drugs on brain, body and behavior. Covers patterns of use and/or abuse of prescription, nonprescription and street drugs as well as an introduction to drug abuse treatment. Prerequisite: junior standing.

## 400:173(g). Psychalogy of Aging - 3 hrs.

Analysis of the factors affecting adult development and aging. Emphasis on physiological, cognitive, sensory, personality and interpersonal changes occurring with age. Prerequisites: 400:008 or equivalent; junior standing.
400:177. Language, Culture and the lindividual -3 hrs.
Examination of relationships that exist among language, socio-cultural systems and the individual. Topics include the relationship between linguistic, cultural and social theories; comparative and historical studies of language and cultures the evolutionary and biological basis of language; language, culture, and world view; and the ways in which language relates to ethnicity (such as African American or Chinese), social class, and gender. Prerequisite: 400:008 or 980:058 or 990:011. (Same as 980:177 and 990:177.)

## 400:189(g). Seminar in Psychology - 1.3 hrs.

Provides opportunity to correlate previous course work and knowledge in field of poychology. May be repeated for a maximum of 6 hours. Prerequisites: 400:008; 400:045 or consent of instructor; 15 hours in paychology; junior stending.

## 400:190(g). Pre-Clinical Practicum - 3 hrs.

Field placement in a mental health or social service agency under supervision. Prerequisites: 400:142; 400:166; junior standing; consent of instructor.
400:192 (g). Practicum in Tesching Psychology - 2-3 hrs.
Organization and teaching of psychology; student serves as participant-observer, with advance approval, in any 400:00x course. May be repeated for a maximum of 6 hours. Prerequisite: junior standing.

## 400:193(g). Research Experience in Psychology - 1-3 hrs.

Conduct a supervised research or scholarly project. May be repeated for a maximum of 6 hours. Highly recommended for students planning to enter graduate programs. 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. Prerequisites: 400:008; 400:045; 15 hours in psychology; junior standing; consent of instructor.
400:220. Developmental Piychology - 3 hrs.
In-depth, critical analysis of major theories of developmental psychology and their application to practical situations. Psychoanalytic, ethological, behaviorist, social learning, cognitive, and contextual approaches to development will be discussed. Prerequisites: an undergraduate course in developmental psychology; graduate standing.

## 400:225. Advanced Psychopathology - 3 hrs.

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. Prerequisite: graduate standing in psychology or consent of instructor.
400:239. 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 multivariate analysis. Prerequisites: previous courses in statistics; graduate standing in psychology or consent of instructor.
400:249. Cognitive and Intellectual Assessment - 3 hrs .
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 instructor.
400:258. Seminar in Industrial/Organizational Psychology - $\mathbf{3}$ hrs.
Includes topics from micro-level ones such as job analysis and selection, through intermediate topics including training, behavior analysis and change, job satisfaction, motivation and decision making to macro aspects such as organizational design and change. Students prepare and deliver presentations which are then discussed in class. Prerequisite: graduate standing.
400:261. Personality - 3 hrs.
Comparative study of major personality theories and techniques of personality assessment. Prerequisite: graduate standing in psychology or consent of instructor.

## 400:262. Personality Assessment - 3 hrs.

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. Prerequisites: 400:249; graduate standing in psychology or consent of instructor.

## 400:264. Soclal Psychology - 3 hrs.

Covers the major areas of classic and current research in social psychology. Students engage in an in-depth, critical analysis of the research in areas including, but not limited to, conformity, obedience, social norms, social cognition, interpersonal relationships, aggression, and helping behavior. Substantial proportion of the course focuses on social cognition. The course also examines the socio-historical context of social psychology and the application of social psychological research. Prerequisites: an undergraduate course in social psychology; graduate standing in psychology or consent of instructor.
400:270. Psychological Intervention I: Theory, Research and Practice 3 hrs.
Designed to cover the major theoretical approaches to counseling, empirical issues relative to psychotherapy, and facilitate proficiency in counseling microskills. Prerequisite: graduate standing in psychology.
400:272. Psychological Intervention II: Cognitive and Behavioral
Therapy - 3 hrs.
Overview of current strategies and techniques for modifying child and adult behavior disorders based on a cognitive-behavioral approach. Prerequisite: graduate standing in psychology or school psychology.

## 400:289. Seminar.

400:297. Practicum.
Supervised field placement in a mental health or other agency offering psychological services. Prerequisites: $400: 249 ; 400: 262$; and $400: 270$ with a $B+$ or better in 400:270; graduate standing in psychology.
400:299. Research.

## 410 Health Promotion and Education

410:005. Orientation to Health Promotion - 1 hr.
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.
410:011. 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.
410:015. Personal Health - 2 hrs.
Designed to develop the understandings, attitudes, and practices which contribute to better individual health.

## 410:020. Maternal and Infant Health - 2 hrs .

Introduction to contemporary issues affecting the health of women and childrent during the prenatal and postnatal period; emphasis on conception, pregnancy childbirth, lactation, and early infancy stages.
410:060. Medical Terminology - 2 hrs.
Basic terminology and vocabulary used in medical field; structural organization of the body, major anatomy, medical procedures and instrumentation, and med-1 ical specialties.
410:110. Introductory Epidemiology - 3 hrs .
Introduction to the principles and methods of epidemiology.
410:120(g). Death Education - 2 hrs.
Examination of 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 popula-1 tions. Prerequisite: junior standing.
410:125(g). 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. Prerequisites junior standing.
410:128(g). Selected Topics in Women's Health - 3 hrs.
In-depth development and exploration of selected themes and topics in women'd health. Focus on "hidden" health issues that disproportionately affect women and examination of health issues and prevention programs surrounding adolescent pregnancy, violence, substance abuse, and disordered eating through a feminist developmental perspective. Prerequisite: junior standing.
410:135. Elementary School Health Education Methods -2 hrs.
Examination of the health and health education needs of elementary school children and the role of the teacher in planning, delivering, and evaluating comprehensive school health education; introduction of instructional methods and materials and their use demonstrated and practiced.

## 410:138(g). International Health - $\mathbf{2} \mathbf{~ h r s .}$

Exploration of widely different disease patterns found between developed and developing countries, and investigation of the complex factors that contribute to poor community health status. Discussion of wellness strategies for populations in developing countries, as well as for minorities, immigrants, low income persons, and other underserved groups within the United States. Prerequisite: junior standing.
410:140. Secondary School Health Education Methods -2 hrs.
Examination of the role of the teacher in planning, delivering, and evaluating health education; introduction of instructional methods and materials and their use demonstrated and practiced.
410:142(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.
410:144. 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.
410:145(g). Health Promotion Evaluation - 3 hrs.
Principles, methods, and procedures to evaluate health promotion programs. Prerequisites: 250:180 or 800:072 or equivalent; 410:156; 410:176; junior standing. 410:146(g). Current lssues in Health - 3 hrs.
Current health topics which are affecting individuals, communities, and the nation or world at large. Includes prevention and/or control of negative health effects of the issues covered. Prerequisite: junior standing.
410:147(g). Minority Health - 2 hrs.
Exploration of health issues and problems faced by some Americans as a consequence of their minority status in the population. Includes class discussions as well as field trips to relevant minority institutions and residential locations. Prerequisite: junior standing.
410:150(g). Marketing Health Promotion Programs - 1 hr .
Application of major marketing functions to health promotion programming. Prerequisite: 130:101; junior standing.
410:152(g). Alternative Health and Complementary Medicine -3 hrs .
Description of complementary and alternative medicine which covers a broad range of healing philosophies, approaches, and therapies not taught widely in medical schools, not generally used in hospitals, and not usually reimbursed by medical insurance companies. Prerequisite: junior standing.

## 410:153(g). Theoretical Foundations of Health Promotion and Education - 3 hrs.

Selected social, behavioral, and communication theories and ethical principles underlying health education practice; emphasis on implications for health education. Prerequisites: 410:005; junior standing.
410:155(g). Stress Management - 2 hrs.
Introduction to stress and stress management, the relationship between stress and disease. Prerequisite: junior standing.
410:156(g). Implementing Health Promotion Programs - 2 hrs.
Methods, techniques, and resources used in implementing health promotion programs. Prerequisite: junior standing.
410:160. Community and Public Health - 3 hrs.
Public health activities concerned with the protection and care of the community; survey of major specialty areas within the public health field. Prerequisite: junior standing.

## 410:161 (g). Global Health Corps Mission - 3 hrs.

Intensive immersion opportunity to plan, implement, and evaluate a large-scale health promotion program on-site with an underserved community in the U.S. or abroad. Under faculty supervision, students will travel, live, and work among the target population. Prerequisite: junior standing.
410:162 (g). Women's Health - 2 hrs.
Survey of contemporary issues in women's health which provides a thorough understanding of women's personal health status, neede, and resources; awareness of women's health issues worldwide and the political, cultural, economic and psycho-social factors which affect the health of women. Prerequisite: junior standing.
410:163(g). Human Diseases - 3 hrs.
Systemic approach to study of human diseases emphasizing common physical disorders afflicting humans. Special emphasis given to developmental disorders, inheritance, cardiovascular disease, cancer, and infectious diseases, along with other common diseases. Current trends in diagnosis, treatment, and preventive measures. Prerequisites: 420:050 or both 840:101 and 840:102; junior standing. 410:164(g). Heatth Care and the Consumer - 2 hrs.
Selection and use of health care products and services, alternative health care, health care insurance systems, consumer protection. Prerequisite: junior standing 410:168. Field Experience In Heath Promotion - 6 or 12 hrs.
Experience in area of student's career objectives. Offered on credit/no credit basis only. Prerequisites: senior standing; consent of Division of Health Promotion and Education Coordinator of Student Field Experiences.
410:172(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.
410:176(g). Planning Health Promotion Programs - 3 hrs.
Social, epidemiological, behavioral, educational, and administrative factors in health promotion. Prerequisites: 410:153; junior standing.
410:178(g). Health Advocacy, Social Action and Policy Development 3 hrs.
Knowledge and skills related to community organizing, coalition building, conllict resolution, political action and policy development as those processes relate to the health of individuals and communities. Prerequisite: junior standing.

## 410:185. 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.

## 410:189. Seminar in Health Promotion - 3 hrs.

Focus on issues in community health education and the transition from student role to health educator or health promotion specialist role.
410:197(g). Global Health Corps Domestic Practicum - 1-3 hrs.
Specialized academic training and supervised field opportunities conducting cul-turally-appropriate health education programs in the local community with diverse or underserved populations such as refugees, minorities, immigrants, and the indigent. Prerequisite: junior standing.
410:255. Worksite Health Promotion - 3 hrs.
Models of delivery of health promotion programs to employee populations.
410:271. Cardiovascular Physlology -3 hrs.
In-depth study of the functioning of the cardiovascular and respiratory systems in the diseased and non-diseased state. Major topics include functional anatomy, cardiorespiratory control, arterial pressure, responses to exercise, electrical activity, and the effects of disease processes. (Cross listed as 420:271.)

410:285. Readings $\mathbf{- 1 4}$ hrs.
410:289. Seminar.
410:290. Philosophy and Ethics of Health Promotion/Education - 3 hrs. Analysis of philosophical and ethical issues in health education.
410:293. Epidemiology - 3 hrs.
Principles and methods of epidemiology; understanding research related to the distribution, frequency, and determinants of disease in human populations; focus on chronic and infectious disease epidemiology and selected topics in related epidemiologic fields.
410:295. 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 Division of Health Promotion and Education Coordinator.
410:297. Practicum - 2-3 hrs.
410:299. Research.
Fee assessed separately for laboratory materials and/or binding of thesis/research paper.

## 420 Physical Education

420:001. (420:Axx 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:
420:011. Fundamental Physical Activities - Aquatics - 1 hr .
Primarily for majors and minors in Physical Education.
420:012. Fundemental Physteal Activities - Conditioning - 1 hr.
Primarily for majors and minors in Physical Education.
420:013. Fundamental Physical Activitles - Dance - 1 hr .
Primarily for majors and minors in Physical Education.
420:014. Fundamental Physical Activities - Gymnastics - 1 hr .
Primarily for majors and minors in Physical Education.
420:015. Lifetime Activities I - 1 hr.
Primarily for majors and minors in Physical Education.
420:016. Lifetime Activities II - 1 hr.
Primarily for majors and minors in Physical Education.
420:017. Fundamental Physical Activities - Outdoor/ Adventure Pursults - 1 hr.
Primarily for majors and minors in Physical Education.
420:018. Prevention and Care of Injuries for the Physically Active - 2 hrs.
Principles, practices and techniques in the prevention and care of injuries for the physically active. Prerequisite: 420:024 or 420:050.
420:019. Prevention and Care Laboratory - 1 hr ,
Laboratory experiences in first aid, CPR, and care of injuries for the physically active. Opportunity is provided to become certified in American Red Cross, First Aid, and Community CPR. Prerequisite or corequisite: 420:018.

## 420:020. Activity for Aging - 2 hrs.

Study of theories of aging relative to physical activity, needs of older adults, motivation to be active, teaching older adults activity skills, and activity program availability for older adults.
420:021. Movement Activities for Children - 2 hrs.
Developmentally appropriate physical activities designed to promote the development, refinement and utilization of fundamental movement actions and concepts during the early through late childhood years. Strategies for selecting and delivering appropriate activities to children. Prerequisite: 420:056.
420:024. Anatomy and Kinesiology - 3 hrs.
Attention to the skeleton, the muscular system, and to joint construction. Application to analysis of skills and techniques used in coaching. (For coaching minors.) No credit for students with credit in 420:050 and 420:151.
420:025. Conditioning Theory and Practice -2 hrs.
Theory and practice in training and conditioning of athletes. Two periods. (For coaching minors.)
420:031. Dance Composition - 2 hrs.
Application of art principles basic to good choreography; advanced technique and composition. Prerequisite: 420:013; two dance activity classes of different styles; consent of instructor.

420:034. Survey of Dance History - 3 hrs.
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.

## 420:036. Dance Performance - $1-2$ hrs.

Credit for performance in approved dance choreography. May be repeated for credit. Maximum of 2 hours may be used toward the Dance Minor. Prerequisite: consent of instructor.
420:037. Applied Choreography - 1-2 hrs.
Credit for approved choreography for dance performances and productions. May be repeated for credit. Maximum of 2 hours may be used toward the Dance Minor. Prerequisite: consent of instructor.
420:042. Motor Learning and Performance Laboratory - $1 \mathbf{~ h r}$.
Use of scientific method and fundamental equipment to illustrate concepts of perceptual-motor behavior and variables which influence motor skill acquisition. Lab, 2 periods.
420:045. Physical Education for the Elementary Grades - $\mathbf{3} \mathbf{~ h r s}$.
Teaching methods and experience in activities. Three periods. No credit for students with credit in 440:045. Prerequisites: 200:030; sophomore standing.
420:050. Anatomy of Human Movement - 3 hrs.
Anatomy of the human body focusing on the muscular and skeletal systems.
420:053. Physical Actlity for Health and Fitness - $\mathbf{3}$ hrs.
Identification and programming of physical activities appropriate for selective stages through the life span. Emphasis on the role of physical activity in the enhancement of health and fitness throughout the life span. Integration of experiential learning activities with cognitive subject matter. Prerequisites: 420:050; 440:010.
420:056. Motor Development and Learning - 3 hrs.
Introduction to the developmental and learning factors which influence the capability to move effectively throughout the life span. Prerequisite or corequisite: 400:008.

## 420:060. Life Guard Training and Instruction - 2 hrs .

American Red Cross material in Basic Water Safety, Emergency Water Safety Lifeguard Training, and Lifeguard Instruction. Opportunity 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.
420:061. Water Safety Instruction - 2 hrs.
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 eleven courses provide for the development of a high level of performance and comprehensive understanding and knowledge pertinent to the specific activity:
420:101. Advanced Skill and Coaching Theory - Baseball - 2 hrs.
Prerequisite: beginning class or equivalent skill.
420:102. Advanced Skill and Coaching Theory - Basketball - 3 hrs.
Prerequisite: beginning class or equivalent skill.
420:104. Advanced Skill and Coaching Theory - Football - 3 hrs. Prerequisite: beginning class or equivalent skill.
420:105. Advanced Skill and Coaching Theory - Golf - 2 hrs.
Prerequisite: beginning class or equivalent skill.
420:107. Advanced Skill and Coaching Theory - Soccer - 2 hrs.
Prerequisite: beginning class or equivalent skill.
420:108. Advanced Skill and Coaching Theory - Softball - 2 hrs.
Prerequisite: beginning class or equivalent skill.
420:109. Advanced Skill and Coaching Theory - Swimming - 2 hrs.
Prerequisite: beginning class or equivalent skill.
420:110. Advanced Skill and Coaching Theory - Tennis - 2 hrs.
Prerequisite: beginning class or equivalent skill.
420:111. Advanced Skill and Coaching Theory - Track and Field - $\mathbf{2}$ hrs. Prerequisite: beginning class or equivalent skill.
420:112. Advanced Skill and Coaching Theory - Volleyball -2 hrs. Prerequisite: beginning class or equivalent skill.
420:113. Advanced Skill and Coaching Theory - Wrestling - 2 hrs.
Prerequisite: beginning class or equivalent skill.
420:118. 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; consent of department.

420:120. Certified Pool Operators - 2 hrs.
Administration of programs, personnel, and facilities; includes pool manage; ment and maintenance.
420:121. Sociology and Psychology of Physical Activity - 2 hrs.
Introduction to the sociological and psychological issues related to physicat activity. Practical information for professionals working in either school or nor school settings dealing with persons involved in physical activity.
420:122. Psycho-Social Aspects of Competitive Sport - 2 hrs.
Introductory philosophical aspects of sport; psychological and sociological dimensions of competitive sport.
420:123. History of American Sport - 2 hrs.
Historical development of sport in relation to other institutions and social movements in American society.

## 420:127(g). Organization and Administration of Competitive Sports - 2

 hrs.Organization, administration, and management of interscholastic, intercollen giate, and intramural sports programs. Prerequisite: junior standing.
420:129(g). Advanced Sports Theory - 2 hrs .
Advanced methods course on coaching concepts in specific sports: (1) baseballs
(2) basketball; (3) field hockey; (4) football; (5) golf; (6) gymnastics; (7) soccery
(8) softball; (9) swimming; (10) tennis; (11) track and field; (12) volleyball; (13) wrestling. May be repeated for a maximum of 6 hours of credit. Prerequisited junior standing; consent of department head for undergraduates.
420:132. Dance Curriculum - $\mathbf{2}$ hrs.
Place of dance in the school curriculum; relationships; progressions, and curriculum building. Prerequisites: 420:013; two dance activity courses of different styles; consent of instructor.
420:135. 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.
420:140. Practicum - 1 hr.
Experiences working with elementary, secondary, adapted, or dance students in activities involving movement. May be repeated for a maximum of 4 hours. Prerequisites: Methods course appropriate to area; consent of instructor.
420:142. Fitness Facilities and Programming - 2 hrs.
Development of an understanding of state of the art fitness equipment, its uses, set-up and benefits for a variety of populations and potential programming for such facilities.
420:145(g). Development Aspects of Movement Performance $\mathbf{- 2} \mathbf{~ h r s . ~}$
How motor skills change with time; nature of factors affecting change; relationship of motor development to total human development; principles of motor development related to teaching motor skills. Prerequisites: 200:030; junior' standing.

## 420:146. Movement Notation - 2 hrs.

Written notation system designed to record and analyze dance and human movement.

## 420:147. Adapted Physical Activity - 1 hr.

Orientation to the characteristics and activity needs of persons with disabilities. Does not fulfill teaching licensure requirement in Adapted Physical Education.
420:148. Adapted Physical Activity Laboratory - 1 hr .
Instructional techniques and materials for adapting physical activity to meet the needs of persons with disabilities. Work may be selected from activities listed in the schedule of classes. May be repeated in different activities. Prerequisite or corequisite: 420:147 or equivalent. Does not fulfill teacher licensure requirement in Adapted Physical Education.

## 420:151. Applied Kinesiology - 3 hrs.

Application of principles of mechanics to body movement. Discussion, 2 periods; lab., 2 periods. Prerequisite: 420:050 or equivalent.
420:152(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: 420:151; junior standing. Prerequisite or corequisite: 200:128.
420:153. Applied Exercise Physiology - 3 hrs.
Acute and chronic responses and adaptations of the physiological systems to muscular activity and training. Prerequisite: junior standing.
420:154. Psychological Skills for Sport Participents - $\mathbf{2}$ hrs.
Understanding of psychological factors which affect performance in competitive sport. Survey of and individualized practice with psychological techniques designed to enhance sport performance.

420:156. Fitness Assessment and Programming - $\mathbf{3}$ hrs.
Assessment of fitness levels and application to fitness programming including remediation of dysfunction in rehabilitation. Prerequisite: 420:153.
420:162. Foundations of Human Movement Study $\mathbf{- 2}$ hrs.
Study of the human as a mover and the contributions of movement to quality of life. Categories of movement activities and their contribution to life throughout history. Philosophical foundations of movement-related roles and professions.
420:168. Assisting in Physical Education - $1 \mathbf{~ h r}$.
Assisting departmental instructor in activity classes. May be repeated once for credit. Prerequisite: consent of department.

## 420:173. Teaching Methods Block - 2 or 5 hrs.

Curriculum design, including movement education and wellness, through the integration of instructional practices, teaching strategies, knowledge of adaptations to physical activity, and assessment practices. Laboratory experiences will be included in elementary, middle school and high school levels. Prerequisites: Physical Education minor: 200:148; 420:021; 420:056. Physical Education Major-Teaching: 200:148; 420:021; 420:051; 420:056; 420:174; 420:176.
420:174. Assessment Processes in Physical Education - $\mathbf{3}$ hrs.
Concepts of measurement and evaluation; statistical analysis; construction of evaluative instruments; and application of written and performance tests. Prerequisite or corequisite: 200:148.

## 420:176. 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: 200:148; 420:121; $420: 162$.

## 420:185. Readings in Physical Education $-1-4 \mathrm{hrs}$.

Individual study in an area of physical education. Credit to be determined at time of registration and to be based on student's proposal. Primarily for majors and minors in Physical Education. Prerequisite: consent of department head.
420:191. Senior Project - 1-6 hrs.
Individualized study and experiential learning under the supervision of qualified faculty and professionals in the field. Prerequisite: consent of instructor.
420:193. Research Experiences - 1-6 hrs.
Conducting of supervised research in a research team setting or mentoring setting with faculty, with presentation and publication of research as the goal. Topics for research may not duplicate a class project or the undergraduate thesis. May be repeated for a maximum of 6 hours. Highly recommended for students planning to enter graduate programs. Prerequisites: sophomore standing; consent of instructor.

## 420:194. Senior Thesis - 6 hrs.

Individualized research involving the selection of an area of inquiry; collection, analyais and interpretation of data. Prerequisite: consent of instructor.
420:197. Internship in Physical Education - 12 hrs.
Comprehensive practical experience in physical education in which the student applies course work in an agency commensurate with degree option. Prerequisite is completion of all course work in the option, current certification in Standard First Aid and Community CPR; consent of Internship Coordinator. Offered on credit/no credit basis only.
420:198. Independent Study.
420:200. 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.
420:222. Sport Psychology - 3 hrs.
Current sport psychology research and its relevance to coaches and athletes. Emphasis on the areas of sport personalogy, competitiveness, motivation, attention, self-concept, attitudes, competitive anxiety, and goal-setting. Stress management techniques and other psychological skills applicable to the sport setting. 420:230. 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.
420:251. Biomechanics - 3 hrs.
Application of mechanical principles and concepts to human movement; principally concerned with the analysis of techniques employed in sports. Prerequisites: 420:050; 420:151; or equivalents.

420:253. 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.
420:255. Motor Control and Learning - 3 hrs.
Study and application of research findings to motor learning and the variables which influence it.
420:260. Laboratory Instrumentation and Test Interpretation - 2 hrs.
Experience in exercise physiology laboratory instrumentation for cardiovascular, metabolic, muscular, and respiratory measurements as well as interpretation of test results. Prerequisite or corequisite: 420:253 or consent of instructor.
420:271. Cardlovascular Physlology - 3 hrs.
In-depth study of the functioning of the cardiovascular and respiratory systems in the diseased and non-diseased state. Major topics include functional anatomy, cardiorespiratory control, arterial pressure, responses to ezercise, electrical activity, and the effects of disease processes. (Cross listed as 410:271.)
420:273. Contemporary Issues in Physical Education - 3 hrs.
Examination and analysis of continuing concerns and issues in the profession.
420:274. Measurement and Evaluation in Physical Education - $\mathbf{3}$ hrs.
Historical background of measurement in physical education; evaluation as a part of teaching; statistical techniques; construction and use of motor and knowledge tests; criteria for test selectiop; administering a testing program; interpretation and use of test results.
420:285. Readings in Physical Education - $1-4 \mathrm{hrs}$.
420:289. Seminar in Physical Education - 1-3 hrs.
Special topics as indicated in the Schedule of Classes.
420:293. Research Experlence in Physical Education - $\mathbf{1 - 2} \mathbf{~ h r s . ~}$
Research on problems other than those for the thesis or in regular course offerings. May be repeated for a maximum of 6 hours. Prerequisite: consent of instructor.

## 420:295. Intemship in Physical Education - 2-4 hrs.

Experience in physical education programs with agencies other than in higher education. Prerequisite: consent of the Graduate Coordinator.
420:297. Practicum - 2-3 hrs.
Practical experience in teaching physical education at the college level. 420:299. Research.
Fee assessed separately for laboratory materials and/or binding of thesis/research paper.

## 42T Athletic Training

42T:023. Introduction to Athletic Training - 2 hrs.
Introduction to the field of athletic training with emphasis on the history of the National Athletic Training Association, certification guidelines, policies and procedures, risk management, roles and responsibilities of athletic trainers, and common illnesses and injuries. Prerequisite: 840:101 or consent of Athletic Training Program Director. Corequisite: 42T:024; 840:102 or consent of Athletic Training Program Director. (Formerly 420:070.)
42T:024. Introduction to Athletic Training Clinical Experience - $\mathbf{1} \mathbf{~ h r}$.
Didactic and psychomotor skill instruction with practical examinations covering the material taught in the Introduction to Athletic Training course. Prerequisite: 840:101 or consent of Athletic Training Program Director. Corequisite: 42T:023; 840:102 or consent of Athletic Training Program Director. (Formerly 420:071.)
42T:033. Emergency Care in Athletic Training - 2 hrs.
Theory, ethics, components, indications, and psychomotor skills of emergency care in athletic training. Prerequisites: 42T:023; 42T:024; admission into the Athletic Training Program.
42T:110. Athletic Tralning Administration - 2 hrs.
Theoretical and practical study of organization and administration in the field of Athletic Training. Prerequisites: $42 \mathrm{~T}: 023 ; 42 \mathrm{~T}: 024$; admission into the Athletic Training Program. Corequisite: 42T:111. Prerequisite or corequisite: 840:101. (Formerly 410:1778 and 420:1778)
42T:111. Athletic Training Administration Clinical Experience - $1 \mathbf{h r}$. Didactic and psychomotor skill instruction with practical examinations covering the material taught in the Athletic Training Administration course. Prerequisites: 42T:023; 42T:024; admission into the Athletic Training Program. Corequisite: 42T:110. Prerequisite or corequisite: 840:101. (Formerly 420:072.)

42T Athletic Training/430 Leisure Services

42T:134. Upper Body Injury Assessment - 2 hrs.
Recognition and evaluation of athletic injuries occurring to the head, face, vertebral column, shoulder, forearm, wrist and hand. Prerequisites: 42T:023; 42T:024; admission into the Athletic Training Program. Corequisite: 42T:135. Prerequisite or corequisite: 840:101. (Formerly $420: 161 \mathrm{~g}$.)
42T:135. Upper Body Injury Assessment Clinical Experience - 1 hr . Didactic and psychomotor skill instruction with practical examinations covering the material taught in the Upper Body Injury Assessment course. Prerequisites: 42T:023; 42T:024; admission into the Athletic Training Program. Corequisite: 42T:134. Prerequisite or corequisite: 840:101. (Formerly 420:165.)

## 42T:137. Lower Body Injury Assessment - 2 hrs.

Recognition and evaluation of athletic injuries occurring to the hip, pelvis, thigh, knee, leg, and ankle. Prerequisites: 42T:110; 42T:111. Prerequisite or corequisite: 840:102. Corequisite: 42T:138. (Formerly 420:182g.)
42T:138. Lower Body Injury Assessment Clinical Experience - 2 hrs.
Didactic and psychomotor skill instruction with practical examinations covering the material taught in the Lower Body Injury Assessment course. Prerequisites: 42T:110; 42T:111; 840:101. Corequisite: 42T:137. Prerequisite or corequisite: 840:102. (Formerly 420:164.)
42T:143. Therapeutic Modalities -2 hrs .
Effects, advantages, disadvantages, indications, contraindications, precautions, and the application parameters of therapeutic modalities in injury rehabilitation of the physically active. Prerequisites: 42T:023; 42T:024; admission into Athletic Training Program. Prerequisite or corequisite: 840:101. Corequisite: 42T:144. (Formerly 420:183g.)
42T:144. Therapeutic Modalities Clinical Experience - 1 hr .
Didactic and psychomotor skill instruction with practical examinations covering the material taught in the Therapeutic Modalities course. Prerequisites: 42T:023; 42T:024; admission into Athletic Training Program. Prerequisite or corequisite: 840:101. Corequisite: 42T:143. (Formerly 420:166.)
42T:157. Therapeutic Exercise - 2 hrs.
Effects, advantages, disadvantages, indications, contraindications, precautions, and the application parameters of therapeutic exercises in injury rehabilitation. Prerequisites: 42T:143; 42T:144; 840:101. Prerequisite or corequisite: 840:102. Corequisite: 42T:158.
42T:158. Therapeutic Exercise Clinical Experience - 1 hr.
Didactic and psychomotor skill instruction with practical examinations covering the material taught in the Therapeutic Exercise course. Prerequisites: 42T:143; 42T:144; 840:101. Prerequisite or corequisite: 840:102. Corequisite 42T:157.
42T:162. Athletic Training Pharmacology -2 hrs.
Effects, indications, and contraindications of therapeutic medications as related to the prevention and care of athletic injuries of the physically active. Prerequisites: 42T:110; 42T:111; 420:153.
42T:170. Current Trends in Athletic Training - 2 hrs.
Modern trends in rehabilitative techniques, orthotic devices, nutritional supplements and allied health professions. Prerequisites: 42T:110; 42T:111; junior standing.
42T:180. Athletic Training Seminar - 2 hrs.
Resume writing, interviewing, and a comprehensive review of the Athletic Training educational competencies. Prerequisites: 42T:110; 42T:111; senior standing.

## 430 Leisure Services

430:010. Introduction to Leisure Services - 3 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. Field trips required.
430:020. Leadership In Leisure Services - 3 hrs.
Theories, principles, and practices of leisure services leadership; techniques and methods of working with individuals and groups.
430:030. Diversity in Leisure Services - 3 hrs.
Overview of the interaction of leisure services and the elements of diversity including race/ethnicity, gender, age, sexual orientation, and mental and physical abilities/qualities.
430:050. Principles of Outdoor Pursuits - 3 hrs.
Overview of the development, implementation and evaluation of outdoor pursuits programs will be examined. Examination of the benefits and challenges of outdoor pursuits as well as identification of the competencies needed to become skilled outdoor leaders, from a strong historical base.

430:110. Programming for Leisure Services -3 hrs .
Introduction to methods and procedures for planning, budgeting, pricin implementing, and evaluating leisure service programs. Prerequisites: 430:01व 430:020.
430:114. Management of Leisure Services - 3 hrs.
Introduction to factors of managing leisure services, with focus on personnel management, legal foundations, policy formulation, budgeting and finance, and organt zational behavior. Prerequisites: 430:010; 430:020.
430:121. Philosophical Foundations of Lelsure, Youth and Human Services - 3 hrs.
Examination of historical and philosophical foundations of leisure, youth and human services, including leisure behavior and societal issues, implications of working with special populations, leisure and the environment, and application of theories and behavioral concepts required to understand and manage service, activities, and environments.

## 430:123. Foundations of Therapeutic Recreation - $\mathbf{3}$ hrs.

History, philosophy and theories of therapeutic recreation; professionalism; fac-1 tors influencing service delivery.

## 430:130(g). Adventure Dynamics - 3 hrs.

In-depth exploration of adventure education. Specific emphasis on planning organization and implementation of adventure education (rope courses and inis tiatives) programs. Variety of experiential education exercises included throught, out the course. Weekend field trip required. Prerequisite: junior standing.
430:140(g). Camp Staff Development - 2 hrs.
Staff development and program planning principles, methods, and proceduref used in the development of camp services. Lecture and lab. Offered on credit/na credit basis only. May be taken for credit for the first 2 hours, subsequent enrollment as audit only. Prerequisite: junior standing.
$430: 141(\mathrm{~g})$. Field Experience in Camp Counseling - $1-6 \mathrm{hrs}$.
Supervised counseling experience in an organized camp. May be repeated for a maximum of 12 hours. Offered on credit/no credit basis only. Prerequisited junior standing.

## 430:143. Trends and lssues in Outdoor Pursults -3 hrs.

Theory and practical application of current issues, concerns and trends as they relate to the field of outdoor pursuits.
430:14 (g). Camp Management Systems - 2 hrs.
Actual administration of a camp program. Personnel supervision, program implementation, and evaluation of camp system are included in this course. Lecture and lab. May be repeated for a maximum of 6 hours. Offered on cred-1 it/no credit basis only. Prerequisite: junior standing.
430:146(g). Managing Recreation Impacts on the Natural Environment -3 hrs.
Comprehensive study of theories, philosophics, methods and planning strategied to facilitate efficient and effective management of natural resources for appropriate use by outdoor recreation visitors. Prerequisite: junior standing.
430:160(g). Assessment, Programming and Evaluation In Therapeuti人, Recreation - 3 hrs.
Methods and techniques used in providing therapeutic recreation to persons with disabilities. Includes fiedd experience. Prerequisites: 310:055; 430:123; verified First Aid and CPR certification; junior standing. Corequisite: 430:167.
430:163. Administrative Practices in Therapeutic Recreation - 3 hrs.
Knowledge and lechniques for management of therapeutic recreation including legal and financial problems, utilization of human resources, and development of public relations. Prerequisites: 430:123; 430:160; 430:167.
430:164(g). Women, Work, and Leisure - 3 hrs.
Assists students in developing an awareness of the changing roles of women in society, particularly within the leisure and work components of women's lives. Prerequisite: junior standing.
430:165(g). Leisure Services Field Experience - 1.6 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 for a maximum of 12 hours. Offered on credit/no credit basis only. Prerequisite: junior standing. 430:166 (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. 430:167. Intervention Techniques in Therapeutic Recreation - $\mathbf{3}$ hrs. Appropriate activity, leadership, and adaptation techniques; includes field experience. Prerequisites: 310:055; 430:123. Corequisite: $\mathbf{4 3 0 : 1 6 0}$.

430:168(g). Areas and Facilities for Leisure Services - 3 hrs.
Planning, designing and managing park, recreation and leisure settings, areas and facilities. Prerequisites: 430:110 or consent of instructor; junior standing.
430:169. Research and Evaluation in Leisure Services - 3 hrs.
Introduction to research, evaluation, and needs assessment concepts, procedures and analyses in recreation and leisure services. Prerequisite: 430:110.

## 430:172(g). Festivals and Special Events Management - 3 hrs.

Exploration of special events and festivals including their contribution to enhancing the quality of life for local residents and tourists. Students will study how financed, when, where, and why such events are created, planned, financed, and why they are effective. Field trips are required. Prerequisite: junior standing
430:184. Senior Project - 1-3 hrs.
Programming, resource or research project to be completed at the internship site. Written and oral presentation required during the internship semester. Leisure Services majors must register for 3 hours. Prerequisite: consent of Internship Coordinator. Corequisite: 430:187.
430:185. Readings in Leisure Services-Youth and Human Service
Administration - $\mathbf{1 - 3}$ hrs.
Individual reading and literature review in an area of leisure services or youth and human service administration. Credit to be determined at time of registrntion based on student's proposal. Prerequisites: junior standing; consent of instructor.
430:187. Internship - 8-12 hrs.
Comprehensive practical experience in leisure, youth or human services. Leisure Services majors must register for 12 hours. Offered on credit/no credit basis only. Prerequisite: consent of Internship Coordinator. Corequisite: 430:184.
430:188(g). Professional Development Seminar - 2 hrs.
Designed to present a professional development forum to explore professional preparation and professional practice issues in leisure services and youth and human service administration. Presented through a unique series of activities that encourage critical analyais and self-exploration. May be repeated for a maximum of 4 hours. Prerequisite: junior standing.

## 430:189. Seminar - $1-2 \mathrm{hrs}$.

Designed to present a professional development forum for students. Focus on professional communication, portfolio development, professionalism, future trends and issues, and applications, interviews, and acceptance for internship placement. Leisure Services majors must register for 2 hours. Presequisite: consent of instructor.

## 430:201. Social Policy and Issues in Leisure Services and Youth and

Human Service Administration - 3 hrs.
Examination and analysis of current trends and issues confronting practitioners in voluntary/not-for-profit, governmental/public, and market/commercial leisure services and youth serving organizations and agencies.
430:202. Social Psychology of Lelsure - 3 hrs.
Exploration of social and psychological dimensions of leisure including the concepts of flow, perceived freedom, work, time, culture, and leisure.
430:250. Management Issues in Leisure and Youth and Human Services
-3 hrs.
Study of management and administration issues in relation to leisure services and nonprofit agencies.
430:260. Strategic Program Management - 3 hrs.
Examination of concepts and theories of recreation and leisure programming. relationship between community organization theory and recreation programming, and processes of planning, implementing, and evaluating recreation and leisure services programs through a systems approach.
430:270. History and Philosophy of Lelsure Services - 3 hrs.
Study in leisure philosophy, focusing on historical evolution of leisure as a way of thinking and feeling. Examination of concepts such as pragmatism, realism, idealism, flow, work, time, perceived freedom, leisure constraints, the wise use of leisure, human dignity, and preservation of the environment.
430:285. Readings $-1-4$ hrs.
430:291. Internship - 2-6 hrs.
Experience in youth/human services with community agencies. Prerequisite: consent of graduate committee.

## 430:299. Research.

Fee assessed separately for laboratory materials and/or binding of thesia/research paper.

## 43T Tourism

43T:070. Principles of Tourism - 3 hrs .
Investigation of many roles travel and tourism play in contemporary society. Overview of the travel and tourism industry, examination of definitions of travel/tourism, and exploration of the history and development of tourism. (Formerly 430:070.)
43T:170. Eco-tourism - 3 hrs.
Study of responsible tourist travel that conserves natural environments and sustains the well-being of local people. Students will gain knowledge of definitions, objectives and profiles of programs involved in eco-tourism. Field trips required. Prerequisite: 43T:070 or consent of instructor. (Formerly 430:170.)
43T:171. Rural Tourism Development - 3 hrs .
Designed to develop competencies in students that will allow them to assist rural communities in the development of a rural tourism program through an organized planning process. Field trips required. Prerequisite: 43T:070 or consent of instructor. (Formerly 430:171.)
43T:173 Conferences, Expositions and Conventions in Tourism - 3 hrs.
Exploration of the field of conferences, expositions and conventions and their niche in the tourism industry. Study of organirational logistics, program development, economic impact, meeting technology, legal issues, employment opportunities, and topics of current interest related to the field. Prerequisite: 43T:070 or consent of instructor.

## $43 Y$ Youth and Human Service Administration

## 43Y:060. Principles of Nomprofit Youth Serving Agencies -3 hrs.

Principles of the Youth and Human Services profession, including history, philosophy, missions, scope of services, activities, and trends. Special emphases on the 13 affiliate agencies within American Humanics, Inc. umbrella.
43Y:150. Management of Nonprofit Youth Serving Agencies - 3 hrs.
Principles, problems and practices of administration for nonprofit youth-serving agencies. Prerequisite: junior standing or consent of instructor.
43Y:151. Financlal Administration for Nonprofit Youth Serving Agencles - 3 hrs.
Theory and practice of budget development and control in nonprofit youthserving agencies. Prerequisite: junior standing or consent of instructor.
43Y:154. Human Resource Development in Nonprofit Youth Serving

## Agencies - 3 hrs .

Management and supervision of volunteers, staff and board members in Youth Service agencies. Emphasis on nonprofit personnel practices and procedures. Prerequisite: junior standing or consent of instructor.
43Y:155. Planning Strategies in Nonproft Youth Serving Agencies - 3 hrs.
Examination and evaluation of various planning models used in nonprofit youth agencies to meet the needs of youth. Emphasis on matching developmental needs to planning strategies and models. Prerequisite: junior standing or consent of instructor.
43Y:157. Introduction to Youth Development in LYHS - 3 hrs.
Historical and philosophical foundations of leisure, youth and human services. Survey of practices and values in relation to the growth of youth in leisure, youth and human service settings. Prerequisite: consent of instructor of.
43Y:240. Models for Intervention With Youth - 3 hrs.
Designed to enable students to develop an understanding of the various models of intervention utilized by professionals who work with youth in youth-serving agencies.
43Y:24. Youth Development in Nonprofit Organizations - 3 hrs.
Examination of concepts and theories of youth development, as related to the design of programs and services for positive role development in nonprofit youth organizations.
43Y: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.
43Y:253. Fundraising and Grant Wrtting for Nonprofit Agencies - 3 hrs. Comprehensive study of various funding sources and the methodology of not-for-profit organizations to secure resources.

## 43Y Youth and Human Service Administration/ 440 Health, Physical Education, and Leisure Services, Interdepartmental/450 Social Work

43Y:254. Marketing the Youth/Human Service Agency -3 hrs.
Marketing strategies in implementing the exchange relationship between not-for-profit organizations and their constituents.
43Y:255. Foundations of Youth and Human Service Administration - 3 hrs.
Examination and analyuis of the history of youth and human service organizations and the professional, theoretical foundations of professional practice, and roles and relationships within related community structures.

## 43Y:256. Personnel Management and Supervision in Youth/Human

 Services -3 hrs.Elements, processes and dynamics of personnel management and supervision as it is applied to youth/human services organizations, with an emphasis on nonprofit agencies.

## 440 Heaith, Physical Education, and Leisure Services, Interdepartmental

## 440:010. 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.

## 440:045. 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 420:045 or 410:135. No credit given to Physical Education majors or minors. Prerequisite: 200:030.
440:290. Research Methods for Health, Physical Education and Leisure Services - 3 hrs.
Introduction to procesees of research in physical ectucation, emphasis on critical analysis of literature and identification of viable research projects.

## 450 Social Work

450:041. 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). (Same as 900:041.)
450:042. 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: 450:041 or consent of instructor.

## 450:045. American Racial and Ethnic Minorities - 3 hrs .

Survey of several American minorities, including Hispanics, Blacks, Asians, and Native Americans. Multi-disciplinary study of these groups with particular emphasis on geographic origins, linguistic traditions and current modes of economic subsistence. Introduction to follways and mores of each group. (Same as 900:045 and 980:045.)

## 450:091. Social Work Practice I - 3 hrs.

Analyzis of the principal social work methods - casework, group work, and community organization. Prerequisites: 450:041; 450:042 (may be corequisite); or consent of instructor.
450:102. Conflict Resolution - 3 hrs.
Survey of social science theory and research in conflict resolution with emphasis on development of less destructive modes of problem solving in social formations. (Same as 980:102 and 990:102.)

## 450:121(g). Mental Deviance and Mental Health Institutions - 3 hrs.

Study of social factors associated with mental illness; its onset, the organizational context of ite care and treatment, and its effects on various societal institutions. Prerequisites: 980:060; junior standing. (Same as 980:121g.)
450:142(g). Working With Racial and Ethnic Minorties - 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: 450:041; junior standing.
450:143. Stress and 5tress Management in the Helping Professlons -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.

450:144(g). Social Policies and lssues - 3 hrs.
Policy development and the consequences of policy for social welfare institutions. Frameworks for policy analyais. Planning program design, and policy decisions for administration of social services. Prerequisites; 450:041; 450:042; senior standing.

## 450:163(g). Minority Group Relations - 3 hrs.

Study of interpersonal and social relations of minority groups within the larger American society, with special reference to Black-White relations. Prerequisitess 980:058; junior standing. (Same as 980:130g.)
450:164(g). Human Behavior and the Social Environment - 3 hrs.
Assessment of applicability of verious 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: $310: 055$ or $400: 120 ; 840: 014$ or a course in human biology; junior standing.
450:171(g). Addictions Treatment - 3 hrs.
Social, legal, political, and ethical considerations surrounding the use and abuse of alcohol and other drugs. Study of eating disorders and non-substance addictions such as shopping and gambling. Theories of causes and survey of social consequences; various intervention models tested in treating the alcoholic/addict and evaluation of the effectiveness of the treatment approaches. Prerequisite: junior standing.
450:172(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: $450: 041$; junior standing.
$450: 173(\mathrm{~g})$. Social Services for the Aged - 3 wze.
Social work practice and methods of delivering social service to the aged; critical analysis of current social programs, services, and legisation for the elderly person. Prerequisites: $450: 041$; junior standing.
450:174(g). Social Services in Health Care Settings - 3 hrs.
Psycho-social impacts of illnesses; roles and responsibilities of health care personnel. Prerequisites: 450:041; junior standing.
450:173(g). Child Weffare Policy and Practice - 3 hrs.
Review of development of fumily 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: 450:041; junior atanding.
450:184. Field Instruction - 11-15 hrs.
440 clock hours required. Eleven credit hours may be earned by: (1) $31 / 2$ days per week on a semester basis; or (2) fulltime for eleven weeks during a semester; or (3) fulltime for eleven weeks during the summer. Additional credit hours will require additional clock hours in field instruction. Offered on credit/no credit basis only. Prerequisites: 450:042; 450:164; 450:185; completion of 450:091 and $450: 192$ with a minimum grade of C in each course; Social Work major; minimum UNI grade point average of 2.20 ; senior standing.
450:185. Social Work Research - 3 hrs.
Application of research to social work prectice including formulation of research questions and hypotheses, strategies of research dexign, measurement and methods of collecting data, questionnaire construction, data presentation and report writing. Prerequisites: 800:023 or equivalent; 980:080; junior standing.
450:189. Readings in Social Work - $1-3$ hrs.
May be repeated only with consent of department. Prerequisites: 6 hours in social work; consent of department.
450:190. Speclalized Field Placement - $1-6 \mathrm{hrs}$.
Specialized Field Placement can be designed to meet unique situations; beyond 450:184. Students may elect $1-6$ hours credit; 40 clock hours equals 1 credit hour. A student may enroll for a maximum of 18 credit hours in a combination of $450: 184$ and $450: 190$. Prerequisites: $450: 192$; minimum UNI grade point average of 2.20 . Enrollment by consent of the Field Coordinator only.
450:192. Soclal Work Practice ll - 3 hrs.
Intermediate level, generic social work practice theory and akills; and task-centered intervention. Prerequisite: Social Work major; minimum UNI grade point average of 2.20; completion of $450: 091$ with a minimum grade of C .
450:193(g). Therapectic 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: 450:192; junior standing.

## 450:194(g). Seminar in Social Work - 3 hrs.

In-depth exploration of an advanced topic in social work practice or social welfare policy. Prerequisites: 450:192; minimum cumulative $\mathbf{3 . 2 0}$ GPA; junior standings consent of instructor.
450:195(g). Family and Group Practice - 3 hrs .
Family, family network, and group work intervention skills. Prerequisites: 450:192; junior standing.
450:196(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: 450:192; junior standing.

## 450:285. Readings - $1-3 \mathrm{hrs}$.

Prerequisite: consent of instructor.

## 48_Communication Studies

## 48C: (Communications)

48C:001. Oral Communication - 3 hrs.
Development of speaking and listening skills by studying the process and theory of communication and by applying communication principles to various speaking situations.

## 48C:004. Interpersonal Communication - 3 hrs.

Study of communication in relationships; exploration and experience with concepts and processes involved in one-to-one communication. Prerequisite: 48C:001.
48C:006. Current lssues in Communication Studies - $\mathbf{3}$ hrs.
Overview of the discipline of communication, with special attention to contemporary social issues, contexts and technology.
48C:011. Oral Interpretation: Texts in Performance - $\mathbf{3}$ hrs.
Introduction to the performance, analysis, and criticism of literary and aesthetic texts.
48C:015. Interpreters Theatre: Directing and Scripting for Group
Performance - 3 hrs.
Introduction to basic forms of staging and adapting of literary and non-traditional texts for group presentation. Work in narrative theatre, compiled scripting, and ensemble performance. Prerequisite: 48C:011 or equivalent. (Formerly 48C:115g.)
48C:020. Technology and Human Communication - 3 hrs.
Investigation of the interplay of technology and communication and the impact on social behavior, thought, and culture.
48C:024. Media Literacy -3 hrs.
Development of the ability to critically analyze media messages by examining the techniques, technologies and institutions that are involved in media production.
48C:031. Group Communication - 3 hrs.
Study of communication in groups; exploration and experience with concepts and processes involved in group communication. Prerequisite: 48C:001.

## 48C:071. Public Speaking - 3 hrs.

Teaches students to prepare, adapt, present, and critique a variety of speeches in a public setting. Prerequisite: 48C:001.
48C:074. Argumentation and Debate - 3 hrs .
Examination in detail of theories of argumentation and debate, emphasizing evidence and reasoning. Prerequisite: 48C:001.

## 48C:091; 48C:191. Applied Forensics - 1 hr.

Maximum of 4 hours credit may be earned. Prerequisite: consent of instructor.
48C:093; 48C:193. Applied Performance Studles - 1 hr.
Credit for approved work in Performance Studies (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.
48C:108(g). Performance Texts and Contexts: Performance and Social
Change - 3 hrs.
Study of the creation and theory of interactive performances as a method to investigate political and social issues. Prerequisite: junior standing. (Formerly section within 48C:111g.)
48C:109(g). Performance Texts and Contexts: Aesthetic and Literary
Performance - 3 hrs.
Study of creation and theory of performance of self, body as text, and other experimental and presentational forms. Prerequisite: junior standing. (Formerly section within 48C:111g.)

48C:110(g). Performance Texts and Contexts: Cultural Performance - 3 hrs.
Study of creation and theory of personal narrative, folk story, performances in everyday life, ceremony and ritual in cultural contexts. Prerequisite: junior standing. (Formerly section within 48C:111g.)
48C:113(g). Performance and Rhetorical Texts in Social Change - 3 hrs . Study of rhetorical and performance texts as they function in social action, therapy, public awareness, identity formation, and rhetorical movements. Prerequisite: junior standing.
48C:114(g). Public Folklore and Performance - 2 hrs.
Examination of folk literature through group and individual performance; investigation of narrative form, audience context, mythic motif, character development in the folk text; exploration of field research and performance opportunities. Prerequisite: junior standing.

## 48C:117(g). Interpreters Theatre Production - 1-2 hrs.

Advanced problems in preparing scripts and directing a group performance for public presentation. Usually involves directing, scripting, designing, or researching for an Interpreters Theatre production. Prerequisites: 48C:015; junior standing; consent of instructor; approved Performance Studies project application.
48C:119(g). Readings in Performance 5tudles - $\mathbf{1 - 3} \mathbf{~ h r s .}$
Extensive individual study of special topics in performance studies theory, history, or research. Prerequisites: 48C:011; 48C:108 or 48C:109 or 48C:110; junior standing.
48C:121(g). Nonverbal Communication - 3 hrs.
Patterns of human expression apart from the spoken or written word. Prerequisite: junior standing. (Same as 680:102g.)
48C:122(g). Language and Communication - 3 hrs.
Communication and language theories, including discourse analysis, ethnography of speaking, conversation analysis, language and social contexts. Prerequisite: junior standing.
48C:123. Rhetorical Theory - 3 hrs.
Survey of the development of rhetorical theory from classical times to the present. Exploration of what constitutes communication, what role it plays in social/political/cultural orders, how it differs between groups, and how it affects social change. Emphasis on (1) classical to contemporary rhetorical theory or (2) contemporary rhetorical theory. Prerequisite: junior standing.

48C:124(g). Communication Theories -3 hrs.
Investigation of concepts offered by various theorists to explain human communication behavior. Prerequisite: junior standing.
48C:126(g). Critical Thinking in Communication -3 hrs.
Exploration of practical application of thinking to facilitate and analyze effective communication behaviors. Prerequisites: minimum of 12 hours in communication; junior standing; consent of instructor.
48C: $128(\mathrm{~g})$. Ethics in Communication - 2 hrs .
Exploration of ethical dimensions and dilemmas in the field of communication. Intended for graduating seniors. Prerequisite: senior standing.
48C:131(g). Theories of Group Processes - 3 hrs.
In-depth study of theories and research in group communications. Prerequisites: 48C:001; 48C:031; junior standing.
48C:132. Organizational Communication - 3 hrs.
Study of communication channels and patterns which occur in large organizations where personnel are largely interdependent. Prerequisite: 48C:001.
48C:134(g). Organizational Cultures and Communication - 3 hrs.
Study of how communication contributes to overall organizational culture which, in turn, affects performance, productivity and satisfaction. Special attention to interpretive and critical theory and research. Prerequisites: $150: 153$ or 48C: 132 ; junior standing.

## 48C:135(g). Organizational Communication Assessment - 3 hrs.

Methods used to assess communication behavior and communication effectiveness in organizations. Special attention to communication auditing techniques, and creation of appropriate intervention techniques. Prerequisites: 48C:132; junior standing.

## 48C:136(g). Mediation Theory and Process - 3 hrs .

Analysis of mediation concepts and processes involving third party intervention in a conflict context. Prerequisites: 48C:004; junior standing.
48C:137(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.

48_Communication Studies
(48C: Communications)

48C:138. Health Communication - 3 hrs.
Theories of communication in health care settings, current issues in health communication, types of applications in interpersonal, organizational, and public communication context; literature and performance methods in health education. Prerequisite: junior standing.
48C:139. Interviewing - 2 hrs.
Interviewer and interviewee functions in business and professional settings; excludes journalistic interviews. Prerequisite: junior standing.
48C:141(g). Listening - 2 hrs.
Study of theory and process of listening, methods of improving skills, and career applications. Prerequisite: junior standing.
48C:142(g). Family Communteation - 3 hrs.
Theories of communication in traditional and alternative family systems. Examination of the role of verbal and nonverbal messages in the creation and negotiation of family structures, meanings, decision making, conflict, and intimacy. Prerequisite: junior standing.
48C:143. Narrative in Family Communication - 1 hr.
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. May be taken concurrently with 48C:142. Prerequisite: junior standing.
48C:144(g). Dimensions of Interpersonal Communication - 3 hrs.
Advanced study of theories and research in interpersonal commusication. Prerequisites: 48C:004; junior standing.
4eC:146. 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.
48C:148(g). Communication and Conflict Management - 3 hrs.
Exploration of the processes involved in managing conflict in various communication contexts. Prerequisites: 48C:004; junior standing.
48C:151(g). Intercultural Communication - 3 hrs .
Study of variables which affect the accuracy, depth, and success of cross-cultural communication. Prerequisite: junior standing.

## 48C:153(g). Gender lssues in Communication - 3 hrs.

Examination of social construction of gender identities through verbal and nonverbal behaviors in daily interaction. Critical analysis of biological, sociological, and patriarchal explanations for presumed gender differences in communication. Prerequisite: junior standing.

## 48C:155(g). Communication, Community, and Change - 3 hrs.

Study of communication practices in the construction, enhancement, and maintenance of communities. Theory and application in case studies of apecific communities. Prerequisite: junior standing.
$48 \mathrm{C}: 160(\mathrm{~g})$. Polltical Communication - 3 hrs.
Study of the elements of national and/or local political communication, including: 1) the rhetoric of political campaigns, and/or 2) the rhetoric of elected officials. Prerequisite: junior standing.
48C:166(g). Selected Toplcs in Communication - 3 hrs .
Intensive work in specialized communication concepts, processes and approeches. No single emphasis may be repeated although the course may be repeated for a maximum of 6 hours. Prerequisite: junior standing.

## 48C:168(g). Message Design and Dellvery - 3 hrs .

Advanced course which teaches students to prepare, adapt and deliver messages in a variety of public settings. Special attention is paid to integrating presentretion technology into the speech communication process. Prerequisites: 48C:001; 48C:071; junior standing.
48C:171. Speech Composition - 3 hrs.
Composition and presentation of manuscript speeches with special emphasis on style and attention to rhetorical examples. Prerequisite: $48 \mathrm{C}: 071$.
48C:172. U.S. Public Address - 3 hrs.
Trining of students in critical skills used to analyze public discourse of the U.S. ${ }_{n}$ including the methods of textual, biographical and analogical criticism. Emphasis on (1) historical public address to 1925 or (2) contemporary public address.
48C:173. Business and Professional Oral Communication - 3 hrs.
Exploration of theories and experiences in business and professional dyadic, small group, and public communication situations, with emphasis on developing individual communication skills and professionalism. Prerequisite: 48C:001.

48C:174(g). Argumentation: Cases and Studies - 3 hrs .
Analysis of selected cases and theories of argumentation. Emphasis on ethic logical and evidential appects of argumentative processes. Prerequisite: juniastanding.
48C:178(g). Freedom of Speech - 3 hrs.
Development of laws and social attitudes that have attempted to regulate coms munication in the United States; relation of free speech to national security, to regulation of the public forum, and to artistic expression; analysis of doctrine and tests used by the Supreme Court in interpreting the limits to free expressio Prerequisite: junior standing.
48C:178(g). Porsuasion - 3 hrs.
Examination of relationshipe between speech communication and change in belief/action patterns; emphasis on study of drives, motives, and attitudes as these are influenced by speech. Prerequisites: 48C:071; junior standing.
48C:179. Cooperative Education - 1-6 hrs.
48C:180(g). Communication Research Methods: Survey Tectniques - 3 hrs.
Examination of principles and procedures of communication research with emphasis on survey methods and techniques. Opportunities for participation in research activities. Prerequisite: junior standing. (Formerly section within) 48C:181g.)
48C:183(g). Communication Research Methods: Ethnographic/ Field
Techniques - 3 hrs.
Examination of principles and procedures of communication with emphasis on ethnographic/field techniques. Opportunities for participation in research activy ities. Prerequisite: junior standing. (Formerly section within 48C:181g)
48C:184(g). Teeching the Oral Component of Language Arts - 2 hrs .
Study of process of communication as it relates to children's speaking and listen-1 ing skill development; examination and development of teaching strategies and resources for teaching oral communication skills at elementary level] Prerequisites: junior standing consent of instructor.
48C:185(g). Communication Research Methods: Historical/Critical Techniques -3 hrs.
Examination of principles and procedures of historical/critical techniqued Opportunities for participation in research activities. Prerequisite: junior standing. (Formerly section within 48C:181g.)
48C:187(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. Strongly recommended to precede student teaching Prerequisites: 12 hours of speech; junior standing.
48C:188(g). Method of Directing Forensks - 2 hrs.
Credit also as a course in education for a student whose major is speechy Prerequisite: junior standing.
48C:189(g). Communication Research Methods: Rhetorical Criticism 3 hrs.
Examination of principles and procedures of rhetorical criticism. Opportunitie for participation in research activities. Prerequisite: junior standing. (Formert/, section within 48C:181g.)
48C:190(g). Communication Research Methods: Experimental Methods and Techniques - 3 hrs.
Examination of principles and procedures of communication with emphasis on experimental methods and techniques. Opportunities for participation in research activities. Prerequisite: junior standing. (Formerly section within 48C:181g.)
48C:191. Applled Forensics - 1 hr . (See 48C:091.)
48C:193. Appiled Performance Studies - 1 hr. (See 48C:093.)
48C:195. Senior Seminar in Communication - 1 hr ,
Application of theories and practices to a social issue from a communication perspective. Synthesis paper required. Intended for graduating seniors. Prerequisite: senior standing.
48C:197(g). Internship in Communication - 1-6 hrs.
Intensive work in specialized area at an off-campus work facility. May be repeated for a maximum of 8 hours. Prerequisites: junior standinge consent of intern advisor and department head.
48C:201. Introduction to Graduate Study and Research - 3 hrs. Exploration of communication research methodologies and resources.
48C:212. Seminar in Performance Studies - 3 hes.
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.

48C:222. 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. 48C:224. Communication Theory - 3 hrs.
In-depth exposure to historical and contemporary scholarship in the human sciences that informs and constitutes theories of communication. Interdisciplinary with focus on theories that describe and explain human communicative behavior. 48C:232. Seminar in Organizational Communication - 3 hrs.
Various topics offered with specific title indicated in Schedule of Classes. May be repeated more than once provided it is on a different topic.
48C:244. Interpersonal Communication - 3 hrs.
Synthesis of psychological, sociological, philosophical analysis of person-to-person communication.
48C:282. Seminar in Communication Education - 3 hrs.
Various topics offered with specific title indicated in Schedule of Classes. May be repeated more than once provided it is on a different topic.
48C:291. Projects In Communication Studies - 1-3 hrs.
May be repeated for a maximum of 3 hours. Consent of departmental committee must be obtained before registration.
48C:292. Graduate Internship - 2-3 hrs.
Experiential learning appropriate for the student's model program of study in the master of arts in communication curriculum. Prerequisites: Fully admitted into the graduate program; have completed a minimum of 12 hours of graduate course work in the department; permission of faculty advisor who will determine any other prerequisite courses.
48C:299. Research.

## 48E: (Electronic Media)

## 48E:003. Introduction to Electronic Production - 3 hrs .

Introduction to audio and video production theories and techniques. Emphasis on gaining an understanding of production terminology, a mastery of basic production techniques, and comprehension of the information these communicate to an audience.
48E:011. Audio Production: (Topic) - 16 hrs.
Advanced theory and practice of producing audio programming for a variety of areas. Topics to be announced in Schedule of Classes. May be repeated for a maximum of 6 hours if topic is different. Prerequisites: 48E:003; 48E:071.
48E:013. Video Production: (Toplc) - 1-6 hrs.
Advanced theory and practice of producing video programming for a variety of areas. Topics to be announced in Schedule of Classes. May be repeated for a maximum of 6 hours if topic is different. Prerequisites: 48E:003; 48E:071.
48E:021. Electronic Media Literacy - 3 hrs.
Development of ability to read television; a basic knowledge of how and why media images are selected, in order to foster a more dymamic relationship between citizens and media. Prerequisite: 48):002.
48E:071. Beginning Writing for Electronic Media - 3 hrs .
Techiniques and script styles used in writing copy, continuity, and programs for radio and television. Prerequisite: 48):002.
48E:073. News Writing for Electronic Media - 3 hrs.
Principles and practice of writing, editing and compiling news for the electronic media. Prerequisite: 48]:007.

## 48E:091; 48E:191. Applied Electronic Media - 1 hr.

Credit available for qualified students who work on campus radio station, KGRK, and/or on other authorized radio/TV/film projects. Maximum of 4 hours credit may be earned. Prerequisite: consent of instructor.
48E:111. Audio Practicum: (Topic) - 1-6 hrs.
Production of a weelly audio program, with students filling the roles of all production staff. Topics to be indicated in Schedule of Classes. May be repeated for a maximum of 6 hours if topic is different. Prerequisite: 48E:011.
48E:112. Multimedia Authoring - 3 hrs .
Examination of principles of design and creation of interactive multimedia computer applications. Students learn to use a multimedia authoring system and apply the knowledge by creating applications which incorporate digitized audio, video, and graphics. Prerequisites: 48E:003; junior standing.
48E:1 13. Video Practicum: (Topic) - 1-6 hrs.
Production of weekly television program, with students filling the roles of all production staff. Topics to be announced in Schedule of Classes. May be repeated for maximum of 6 hours if topic is different. Prerequisite: 48E:013.

48E:115. Advanced Reporting for Electronic Media: (Topic) - 3 hrs.
Principles and practices of radio or television news gathering and presentation. Writing, field acquisition of information, editing and story construction, performance, and analysis of news process. Topics to be indicated in Schedule of Classes. May be repeated for maximum of 6 hours if topic is different. Prerequisite: 48E:073.
48E:117. Electronic Media Projects - 1 - $\mathbf{6}$ hrs.
Individualized independent production for audio and/or video. Students work under the supervision of faculty on a major project beyond the scope of existing courses. May be repeated for a maximum of 6 hours. Prerequisites: 48E:011 or 48E:013; junior standing; consent of instructor.
48E:121(g). Electronic Media and Culture - 3 hrs.
Examination of electronic media and their relationship to culture. Use of a number of approaches to define culture and to analyze media products as cultural forms. Prerequisites: 48E:021; junior standing.
48E:123(g). Television Form, Content, Criticism: (Topic) - 3 hrs .
Advanced examination of television programming forms and content as an art form and as vehicle for dissemination of information. Analysis may indude historical and/or contemporary examples. Topics to be announced in Schedule of Classes. May be repeated for maximum of 6 hours if topic is different. Prerequisites: 48E:021; junior standing.
48E:131(g). Electronic Media: Audience Anslysis - 3 hrs.
Examination of characteristics and behaviors of electronic media audiences. Special attention to audience research methodologies and impact of new communication technologies on audience behavior. Prerequisites: 48E:021; junior standing.
48E:132(g). The FCC: Law and Policy - 3 hrs.
Examination of communication law and related policies and procedures as administered by the Federal Communications Commission in the United States, including areas of broadcast, common carrier, and cable regulations. Prerequisites: 48E:021; junior standing.

## 48E:134(g). Electronic Media Management - 3 hrs.

Examination of administrative oversight of electronic media business aspects such as production, programming, personnel, sales, and engineering. Prerequisites: 48E:021; junior standing.
48E:136. Electronic Media Sales and Promotion - 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: 48E:071; junior standing.
48E:138(g). Broadcast and Cable Programming - 3 hrs.
Informational programming responsibilities for radio and television, including development of a philosophy concerning effective programming strategies. Prerequisites: 48E:021; junior standing.
48E:139(g). Electronic Media Industries: (Topic) - 3 hrs.
Focus on operation of various mass media industries as they evolved and function as rocial, cultural, political, and economic entities. Topics to be indicated in Schedule of Classes. May be repeated for maximum of 6 hours if topic is different. Prerequisites: 48E:021; junior standing.
48E:141(g). Electronic Media: Processes and Effects - 3 hrs.
Examination of processes, functions and effects of electronic media. Special attention to impact of electronic media on the nature of political process, violence and aggressive behavior, and individual attitudes and behavior. Prerequisites: 48E:021; junior standing.

## 48E:161(g). Communication Technologies -3 hrs .

Examination of past, current, and emerging communication technologies and how they affect those who use them. Emphasis on the variety of social consequences, intended or not, that can result from use and interaction with communications technologies. Prerequisites: 48):002; junior standing.
48E:163(g). Telecommunication and Information - 3 hrs .
Focus on rise of the Information Society, as fueled by advances in electronics and telecommunication. Examination of acquisition, transfer, and use of information by government, businesses, and society. Prerequisites: 48E:021; junior standing.

## 48E:16e(g). Selected Topics in Electronic Media - 3 hrs.

Extensive work in specialized electronic media concepts, processes and approaches. No single emphasis may be repeated although the course may be repeated for a maximum of 6 hours. Prerequisite: junior standing.

48_Communication Studies (48E: Electronic Media/ 48J: Journalism/48P: Public Relations)

48E:171 (g). Script Writing - 3 hrs.
Theory and practice of writing scripts for nonjournalistic programming in audio and video, including information, dramatic and variety formats. Prerequisites: 48E:013; junior standing.
48E:191. Applied Electronic Media - 1 hr. (See 48E:091.)
48E:195. Senior Seminar in Electronic Media - 1 hr.
Exploration of trends in Electronic Media field as applied to assessment of student's electronic media knowledge and skills. Synthesis paper required. Prerequisite: senior standing.
48E:197(g). Internship in Electronic Media - 1-8 hrs.
Intensive work in specialized area at off-campus work facility. May be repeated for a maximum of 8 hours. Prerequisites: junior standing; consent of intern advisor and department head.
48E:201. Introduction to Graduate Study and Research - $\mathbf{3}$ hrs.
(Croes listed as 48C:201.)
48E:222. Seminar in Mass 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 a different topic.
48E:224. Mass Communication Theory - 3 hrs.
Designed for beginning graduate students to explore mass communication inquiry. Provides students with working knowledge of some of the major literature on mass communication theory and research.
48E:291. Projects in Electronic Media - 1-3 hrs.
(Cross listed as 48C:291.)
48E:292. Graduate Internship - 2-3 hrs.
(Cross listed as 48C:292.)
48E:299. Research.

## 48J: (Journalism)

## 48:002. Mass Communication and Soclety - 3 hrs.

Survey of basic mass communication processes, including history and structure of media and media-related industries and sales, audiences, effects, careers and future directions.
48:007. Reporting Methodologies and Sources - 3 hrs.
Emphasis on information gathering techniques for the mass media, including examination of search strategies, sources and news values.
48:071. News Writing for Print Media - 3 hrs.
Principles and practice of writing, editing and compiling news for the print media. Prerequisites: 48):002; 48):007.
48:091; 48:191. Applied Journalism - 1 hr .
Credit for approved work in journalism (e.g., campus newspaper or related activity). May be repeated for maximum of 4 hours. Prerequisite: consent of instructor.

## 40:121(g). History of Mass Communication - 3 hrs.

Development of the structure, economics and content of communication in the United States; examination of significant persons and events contributing to the technological, economic and social development of mass media. Equal emphasis on print and electronic media. Prerequisites: 48j:002; junior standing.
48:124(g). Communication Theories -3 hrs.
(Cross listed as $48 \mathrm{C}: 124 \mathrm{~g}$.)
48:132(g). Mass Communication Law and Ethics- 3 hrs.
Origins and backgrounds of mass communication law and ethice, including that in journalism and public relations. Contemporary problems and issues in mass communication-related law and ethics. Libel, fair trial, law and self-regulation in journalism, public relations, and advertising. Prerequisite: junior standing.
48::151 (g). Global Mass Communication Systems - 3 hrs.
Media practices and philosophies in the major regions of the world. Government and economic structures of global communications processes and practices. Prerequisites: 48):002; junior standing.
48:166. Selected Toples in Muss Communication - $\mathbf{3}$ hrs.
Study of current issues in mass communication. Prerequisite: 48]:002; junior standing.
485:171 (g). Advanced Reporting - 3 hrs.
Gathering information and writing and editing of complex news stories; emphasis on advanced techniques of interviewing, joumal research and personal observation. Prerequisites: 48):071; junior standing.
48:172. Editing and Design - 3 hrs.
Copyreading, proofreading, writing headlines; studying make-up, typography, and photography. Prerequisite: 48J:071 or consent of instructor.

48:176(g). Magazine Article Writing - 3 hrs.
Writing and marketing different types of articles for various publication Prerequisites: 48]:071 or 620:015 or consent of instructor; junior standing. 48:178(g). Specialized Reporting: (Topics) - 3 hrs.
Prepares students to gather and report news in specialized areas such as businew education, sports, science, healch, environmental issues, and international affaiss. Two or three topics to be included in each offering of the course; topiof to be indicated in Schedule of Classes. May be repeated for credit only by takins different topics. Prerequisites: 48]:171 or consent of instructor; junior standing,
48J:191. Applied Joumalism - 1 hr .
(See 48J:091.)
48:197(g). Intemship in Journalism - 1-8 hrs.
Intensive work in specialized area at off-campus work facility. May be repeatef for a maximum of 8 hours. Prerequisites: junior standing; consent of intent advisor and department head.

## 48P: (Public Relations)

48P:005. Principles of Public Relations - 3 hrs.
Introduction to theories, process and techniques involved in researching, plat ning, and implementing programs designed to influence public opinion and human behavior. Prerequisites: 48C:001; 620:005.
48P:091; 48P:191. Applied Public Relations - 1 hr .
Credit for approved work in public relations (e.g, problems of campaign on campus or in the community). May be repeated for maximum of 4 houry. Prerequisite: consent of instructor.
48P:170(g). Global Public Relations - 3 hrs.
Examination and comparison of cultural and geopolitical distinctions of globail public relations practice. Prerequisite: junior standing.
48P:173. Public Relations Writing - 3 hrs.
Conceptualization and multi-media adaptation of copy for public relations campaigns. Prerequisite: 48):007.
48P:182(g). Public Relatlons Campaign Methods - 3 hrs.
Analysis and production of public relations tools; techniques to gain reactiond and support from specialized groups. Planning and preparation of public relations communications materials and use of controlled (public) media to reach/ target audiences. Prerequisites: 48 P .005 ; junior standing.
48P:184(g). Pubilk Relations: Integrated Communications - 3 hrs.
Study of strategies and practice of skills needed to practice "Integrated Communications", which includes use of public relations in the mix of marketive communication function within organizations. Prerequisite: junior standing.
48 P:188(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. Prerequisiry] senior standing or consent of instructor.
48P:190(g). Public Relations Management - 3 hrs.
Study and analysis of strategies and processes used in managing firms and inter-1 nal departments; emphasis on management of on-going relations programy Prerequisites: 48P:182; junior standing.
48P:191. Applled Public Reletions - 1 hr . (See 48P:091.)
48P:197(g). Internship in Public Relations $-1-8 \mathrm{hr}$.
Intensive work in specialized area at off-campus work fecility. May be repeated for maximum of 8 hours. Prerequisites: junior standing; consent of intern advisor and department head.
48P:201. Introduction to Graduate Study and Research - 3 hrs .
(Cross listed as 48C:201.)
48P:222. Seminar in Mass Communication - 3 hrs.
(Croes listed as 48E:222.)
48P:224. Mass Communication Theory - 3 hrs.
(Cross listed as 48E:224.)
48P:282. Seminar in Public Relatlons $\mathbf{- 3} \mathbf{~ h r s .}$
Various topics offered with specific title indicated in Schedule of Classes. May bu, repeated more than once provided it is on a different topic.
48P:292. Graduate Internship - 2-3 hrs.
(Cross listed as 48C:292.)
48P:299. Research.

## 490 Theatre

490:001. Acting I -3 hrs.
Introduction to the craft of acting beginning with exercises and culminating in applying the experience from those exercises to a scene from a play. Exploration of increasing self-awareness. Discussion, 3 periods; lab, 3 periods. FOR NONMAJORS ONLY.

## 490:002. The Theatrical Arts and Society - 3 hrs.

Audience-oriented introduction to the dramatic arts, including the live theatre, film, and television, and their interrelationships with society. Arranged lab also sequired. Lab fee.
490:010. Fundamentals of the Theatre Experience 1-4 hrs.
Introduction to basic components of theatrical production. Exploration of, and experience with, concepts, processes, and theories of theatre, including development of skills and techniques in preparation and performance. Participation on production(s) required. Discussion, 4 periods; lab, 4 periods. Lab fee.
490:011. Fundamentals of the Theatre Experience II - 4 hrs.
Continuation and application of skills, techniques, and theories from Fundamentals of the Theatre I. Participation on production(s) required. Discussion, 4 periods; lab, 4 periods. Lab fee. Prerequisite: 490:010.
490:015. Stagecraft - 3 hrs.
Basic skills of stagecraft and their application to theatrical production for scenery, costumes, and lighting. Lectures and project-oriented labs introduce students to building materials, tool techniques, graphic communication systems, and project planning. Lab fee.
490:024. Acting II- 3 hrs.
Deepens understanding of and proficiency at the craft of acting through designated exercises, scene work, observations, and discussion; includes work in the use of objective and physical action on a personal level. Discussion, 3 periods; lab, 3 periods. Prerequisites: 490:010; 490:011.
490:027. Audition Techniques - 1 hr .
Selection, preparation, and performance of appropriate audition materials and development of proper audition behavior for the actor. Meets 2 hours per week for 1 hour credit. Prerequisites: 490:024; consent of instructor.
490:040. Drawing and Rendering for the Theatre -3 hrs .
Introduction to basic graphic methods for theatre production with emphasis on representational drawing and introduction to rendering. Prerequisites for Theatre majors: 490:010; 490:011. Prerequisite for other students: consent of instructor.
490:050. Theatre Practicum I- 1 hr.
Credit for approved work in theatre production (e.g., running crew, construction crew, performance). Two required (only one may be in performance). Prerequisites: 490:010; 490:011.
490:054. Production Studies - 3 hrs .
Participation in a production combined with an in-depth study of a topic related to that production. Prerequisites: 490:010; 490:011.
490:056. Collaborative Process - 3 hrs .
Collaboration in the creation and presentation of a theatre piece. Participants research, write, stage, design, act, build and run the production. Prerequisites: 490:010; 490:011.

## 490:060. History of the Theatre I - 3 hrs.

Examination of plays, production methods, and historical trends in the theatre from its beginnings through 1800. Prerequisites for Theatre majors: 490:010; 490:011. Prerequisite for other students: consent of instructor.
490:061. History of the Theatre II - 3 hrs .
Examination of plays, production methods, and historical trends in the theatre from 1800 through the present. Prerequisites for Theatre majors: 490:010; 490:011. Prerequisite for other students: consent of instructor.
490:063. Directing I - 3 hrs.
Analysis of plays and fundamentals of directing. Discussion, 3 periods; lab, 3 periods. Prerequisites: 490:024; junior standing or consent of department head.
(Formerly 490:163.)
490:066. Theatre and its Literature - 1 hr.
Selected readings in theatre literature, history, theory, criticism, performance, and related areas. Two required for majors.
490:101. Creative Drama - 3 hrs.
Prepares students to guide children and young adults in creative drama. Study of the art of spontaneous drama as it relates to education and development of young people cognitively and creatively. Lab fee.

## 490:102(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 supervision of classroom teacher and instructor of the course. Prerequisites: 490:101; junior standing.

## 490:104(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.
490:106. Theatre in Education - 3 hrs.
Application of theatre performance and improvisation techniques to the teaching of a specific curricular topic intended for young audiences.
490:108(g). Methods of Teaching Theatre in High School - 2 hrs.
Theory for teaching theatre in the secondary school; prectical 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: 12 semester hours of speech; junior standing; consent of instructor.
490:121. Movement for the Actor - 3 hrs .
Designed to encourage relaxation, limberness, and strength. Exploration of ways in which movement and sensory work can trigger and influence character work and emotional connection. Discussion, 3 periods; lab, 3 periods. Prerequisites: 490:010; 490:011.
490:122. Vocal Production for the Actor - 2 hrs.
Using relaxation and breathing techniques developed by Kristin Linklater, students will release tension and old habits to discover organic, natural, and personal vocal response. Discussion, 2 periods; lab, 2 periods.

## 490:123. Speech for the Actor - 2 hrs.

Introduction to International Phonetic Alphabet and Standard American Stage Speech. Discussion, 2 periods; lab, 2 periods. Prerequisites: 490:010; 490:011; 490:122.
490:124(g). Acting III -2 hrs.
Focus on individual instrumental problems while enforcing craft skills on more challenging texts. Discussion, 2 periods; lab, 2 periods. Prerequisites: 490:024; 490:122; junior standing; consent of instructor.

## 490:125. Movement and Volce Studio - 1 hr .

Continuation of movement/voice training through application of a focused physical or vocal methodology. Prerequisites: 490:121; 490:122 or consent of instructor.

## 490:126(g). Acting Styles - 3 hrs.

Application of techniques learned in Acting II, including theoretical studies of various styles of acting as well as extensive scene work. Discussion, 3 periods; lab, 3 periods. Prerequisites: 490:024; 490:060; 490:061; 490:122; junior standing; consent of instructor.
490:127(g). Acting IV - 2 hrs.
Advanced acting class focusing on scene work from playwrights such as lbsen, Chekhov, Miller, Williams, Hansberry, and Wasserstein. Emphasis on use of bold imaginative and personal choices to enter the world of the play. Discussion, 2 periods; lab, 2 periods. Prerequisites: 490:024; 490:124; junior standing.
490:129(g). Stage Combat - 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. Discussion, 2 periods; lab, 2 periods. Prerequisite: junior standing.
490:130. Dramatic Criticism - 2 hrs.
Introduction to theatrical theories and critical methods. Prerequisites: 490:010; 490:011.
490:134. Playscript Analysis and Interpretation - 3 hrs.
Readings and analysis of plays (Greek to the present) in preparation for production. Prerequisites: 490:010; 490:011.

## 490:140. Production Techniques Studio: Drafting, Pattem

Development, Scene Palnting, or Make-up - 1 hr .
Intensive study and project work in the following advanced skill areas: Drafting for the Theatre, Pattern Development for Theatre Costumes, Scene Painting, Make-up. Discussion, 1 period; lab, 1 period. Lab fee. Prerequisite for Theatre major:: 490:040. Prerequisite for other students: consent of instructor.

## 490 Theatre/51_Communicative Disorders

 (51A: Audiology/51C: Communicative Disorders)
## 490:142(g). Design: Sets, Lights, or Costumes - 3 hrs.

Discussion and project work in the development and presentation of scenery, lighting, or costumes for the performing arts. Taught every semester on a rotating basis. Prerequisites for Theatre majors: 490:040; completion of an appropriate Production Techniques Studio in Drafing or Pattern Development; junior standing.

## 490:144(g). Topics in Theatre Design and Production - 3 hrs.

Advanced topics in Design and Production involving research and experiential investigation of production techniques. Rotating topics will include: Period Styles for Theatre; Advanced Problems in Theatre: Make-up Production, Costume Production, Scenery Production, Lighting Production, and Sound Production. May be repeated for maximum of 6 hours. Prerequisites for Theatre majors: 490:040; one Production Techniques Studio (490:140); junior standing. Prerequisites for other students: junior standing; consent of instructor.
490:150. Theatre Practicum II - 1 hr.
Credit for approved work in advanced theatre production (e.g., crew head, stage manager, performance). Two required (only one may be in performance). Prerequisite: 490:050.

## 490:151 (g). Theatre Production - $1-4 \mathrm{hrs}$.

Assumption of a major production responsibility under supervision of faculty. Lab, 2 hrs. May be repeated in various production areas for a maximum of 8 hours. Prerequisites: junior standing; consent of supervising instructor.
490:153. Synthesis of the Theatre Experience - 3 hrs.
Designed to integrate various skills and theories introduced in 490:010 and 490:011 into the process of designing, rehearsing, and performing a production. Prerequisite: senior standing.
490:155(g). Theatre Management - 3 hrs .
Intensive study of business practices in the academic, community and commercial theatre. Field trips and guest lectures. Prerequisite: junior standing.
490:156(g). Plays in Production - 3 hrs.
Examination of plays as they have been interpreted through theatrical production. Emphasis may be on such aspects as the plays of a particular playwright, particular era, specific genre, or that reflect a particular production style. May be repeated for a maximum of 6 hours. Prerequisites for Theatre majors: 490:060; 490:061; junior standing. Prerequisites for other students: junior standing; consent of instructor.
490:157(g). Stage Management - 3 hrs.
Introduction to basic techniques, procedures and forms used in stage managing theatre and allied performing arts. Prerequisites: 490:063; junior standing. 490:158(g). Internship - 1-8 hrs.
Intensive work in specialized area at off-campus theatre facility. For advanced students in theatre. May be repeated for a maximum of 8 hours. Prerequisites: junior standing; consent of advisor and department head.
490:160(g). History of the Theatre lill - 3 hrs .
Examination of plays, production methods, and historical trends in the theatre. Sections may examine African American Theatre History, American Theatre History, Modern European Theatre History (1900-present), Feminist Theatre. May be repeated for a maximum of 9 hours. Prerequisites: 490:060; 490:061; or consent of instructor, junior standing.
490:162(g). Directing II 3 hrs.
Scene study in direction, analysis of text and working with actors. Scene work culminates in directing of a one-act play. Continues work begun in Directing I . Discussion, 3 periods; lab, 3 periods. Prerequisites: 490:063; junior standing.
490:164(g). Advanced Directing and Design - 3 hrs.
Collaborative approach in the advanced analysis of selected scripts and the creation of unified production concepts. Directors will continue work begun in 490:063. Designers will continue work in design theory and techniques, and develop designs in more than one area for portfolio presentation. Discussion, 3 periods; lab, 3 periods. Prerequisites: Directors: 490:063; 490:140, Techniques Studio in all three skill areas; junior standing. Designers: 490:063; 490:142 in at least two areas; junior standing. (Formeriy 490:110g.)
490:165(g). Directing Projact - 3 hrs.
Focus on the direction of a play. Students will continue their work in analysis, research, and production concepts for the director under the supervision of a faculty advisor. Prerequisites: 490:164; junior standing; consent of instructor.
490:166(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: junior standings consent of instructor.

490:168(g). Playwriting - 3 hrs.
Prerequisites for Theatre majors: 490:134; junior standing. Prerequisites for other students: junior standing; consent of instructor.
490:220. Teaching Acting -3 hrs.
Practical model for teaching acting at all levels. Theoretical and experientid modes are explored. Prerequisite: graduate standing.
490:280. Introduction to Graduate Studies In Theatre - 3 hrs.
490:284. Dramatic Theory - 3 hrs.
Review and examination of major theories of drama and performance from an historical or thematic base. May be repeated for credit. Prerequisite: graduate standing or consent of instructor.
490:285. Readings in Theatre - 3 hrs.
490:289. Seminar in Theatre - 3 hrs.
Various topics offered with specific title to be indicated in Schedule of Classen May be repeated more than once provided it is on a different topic.
490:299. Research.

## 51_Communicative Disorders

## 51A: (Audiology)

51A:258. Audiology Practicum - 1-2 hrs.
Supervised clinical experience in auditory evaluation and training of the hearine impained. May be repeated for a maximum of 6 hours. Prerequisite: Audiology major.
51A:265. Differential I-2 hrs.
Principles and application of auditory testing to identify hearing disorders. Prerequisite: 51C:177.

## 51A:267. Differential II - 3 hrs .

Application of pure-tone and speech audiometry to complex auditory problems and differential diagnostic questions. Prerequisite: 51A:265.
51 A:270. Anatomy and Physlology of the Auditory Mechanism - 3 hrs .
Functional anatomy, physiology, audiology, neurology of the hearing mechanisms. Prerequisite: 51C:177 or consent of instructor.
51A:272. Hearing Alds $1-2$ hrs.
Application of current hearing aid technology, earmold acoustics, electroacoustic analysis, assessment procedures, fitting protocols and verification strategies.
51A:274. Hearing Alds II - 3 hrs.
Clinical application of hearing aid technology. Prerequisite: 51A:272.
51A:276. 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: 51A:265.
51A:278. Evaluation/Management of Adult Hearing Problems - 2 hrs.
Techniques and procedures in the rehabilitation of adults with hearing disorders. Prerequisites: 51C:177; 51C:180.
51A:280. Communify and Industrial Hearing Conservation - 2 hrs.
Study of the audiologist's role in managing hearing conservation programs in the community, industry, and public school.
51A:284. Theory and Practice in Audiology - 1 hr .
Discussion of professional issues in clinical practice.
51A:289. Seminar In Audiology - 2 hrs.
Seminars in special topics indicated in Schedule of Classes. May be taken for a maximum of 6 hours as long as no topic is repeated. Prerequisite: consent of instructor.

## 51C: (Communicative Disorders)

51C:100. Introduction to Pathology of Speech-Language and Hearing - 3 hrs. 51C: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. Corequisite 51C:107.
51C:107. Language Aralysis Lab - 1 hr.
Experience in applications of language sample analysis procedures for children at different levels of development. Corequisite: 51C:106.
51C:111. Phonetics in Communicative Disorders - 3 hrs .
Proficiency in use of International Phonetic Alphabet with emphasis on physiological and linguistic aspects of speech sound production.
51C:114. Anatomy and Physiology of Speaking Mechanism - 3 hrs.
Introduction to functional anatomy and physiology in the speech mechanism. Prerequisite: 51C:100.

## $51 \mathrm{C}: 125$. Disorders of Speech Sounds -3 hrs .

Study of disordered phonological/articulatory systems; exploration of assessment and intervention principles and practices. Prerequisites: 51C:106; 51C:111; or consent of instructor.
$51 \mathrm{C}: 127$ (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: 51C:106; junior standing.
51C:129(g). Clinical Examination - 2 hrs.
Theoretical and practical aspects of the evaluation process. Prerequisites: 51C:111; junior standing, for Communicative Disorders majors only.
51C:151. Clinical Processes 1, Analysis and Observation - 1 hr.
Introduction to role of speech-language pathologists and audiologists as clinicians; emphasis on analysis and observation of remediation. Prerequisite: 51C:100 or consent of instructor. (Formerly 51C:150 section 1.)
51C:152. Clinical Processes II, Participation - 1 hr.
Introduction to role of speech-language pathologists and audiologists as clinicianss emphasis on participation as an assistant in the UNI Roy Eblen Speech and Hearing Clinic. Prerequisite: 51C:151 or consent of instructor. (Formerly 51C:150 section 2.)

## 51C:155. Clinical Practice - 1 hr .

Clinical experience evaluation and remediation of language and articulation disorders as well as experience in testing of hearing. Must be repeated for a total of 2 hours for students planning to major in Speech-Lenguage Pathology at the graduate level. Prerequisites: 51C:125; 51C:127; for Communicative Disorders majors only.

## 51C:160(g). Augmentatlve Communication - 2 hrs.

Study of theoretical and practical aspects of planning augmentative communication for the severely communicatively disabled. Prerequisites: 220:050 or 51C:100; junior standing.
51C:162(g). Acoustic Phonetics - 4 hrs.
Study of sound analysis techniques used in the diagnosis of and research into disorders of communication. Laboratory experience included. Prerequisites: 51C:175; junior standing.
51C:164(g). Neurological Foundation of Communication -2 hrs.
Study of neuroanatomical and neurophysiological bases of speech production.
Prerequisites: 51C:114; junior standing.
$51 C_{1} 166(\mathrm{~g})$. Introduction to Fluency - 3 hrs .
Study of etiology, diagnosis, and management of fluency disorders. Prerequisites: 51C:106; 51C:114; junior standing.
S1C:168(g). Communication Problems of Special Populations $\mathbf{- 2} \mathbf{~ h r s . ~}$
Study of communication patterns, assessment accommodations, and intervention practices for selected low-incidence child and adult clinical categories. Prerequisite: junior standing.
51C:170(g). Manual Communication - 3 hrs.
Basic principles and instruction in use of manual communication; survey of various manually coded English systems and American Sign Language. Prerequisite: junior standing.

## 51C: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: 51C:170; junior standing.
51C:175(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: 51C:100; junior standing.
$51 \mathrm{C}: 177(\mathrm{~g})$. Intreduction to Audiology - 3 hrs .
Basic hearing science, types of hearing loss, and audiometric measurement. Prerequisites: 51C:175; junior standing.

## 51C:180(g). Aural Rehabilitation - $\mathbf{3} \mathbf{~ h r s . ~}$

Principles and procedures for assessment and rehabilitation of communication deficits of hearing-impaired persons-emphasiring amplification systems, auditory training, speech-reading, and total communication for the hard-of-hearing and deaf. Prerequisites: 51C:175; 51C:177; junior standing.
$51 \mathrm{C}: 190(\mathrm{~g})$. Current Problems in Speech-Language Pathology and Audiology - $1-2 \mathrm{hrs}$.
Major issues confronting clinicians, researchers, and the profession. Topics to be determined by instructors. May be repeated as section topics change. Prerequisite: senior or graduate standing or consent of instructor.

## 51C:197(g). Honors in Communicative Disorders - 2-3 hrs.

Development and implementation of an approved research project in some area of communicative disorders. Prerequisite: junior standing; consent of instructor. 51C:200. Research Methods in Speech-Language Pathology and Audiology -2 hrs.
Introduction to methodology, various designs, and report preparation for rescarch. Prerequisite: an approved course in statistics.
51C:257. Internship In Clinical Settings - $\mathbf{4 - 1 6} \mathbf{~ h r s . ~}$
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. Prerequisile: consent of instructor.
51C:282. Professional lssues - 1 hr .
Study of current professional issues in speech-language pathology and audiology. Prerequisite: graduate major in speech-language pathology or audiology.
51C:285. Individual Readings - $1-2 \mathrm{hrs}$.
Project must be approved before beginning of semester in which work is to be done. May be repeated. Prerequisite: consent of instructor.
51C:299. Research - 1-6 hrs.
Prerequisites: consent of instructor and department head.

## 51S: (Speech-Language Pathology)

515:210. Physiologic Phonetics - 2 hrs.
Hands-on approach to investigation of physiologic aspects of speech. Focus of experiences will be on state of the art physiologic analysis of communication.

## Prerequisite: 51C:162 or consent of instructor.

## 515:220. 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: 51C:125 or consent of instructor.
515:222. Language Training Strategles - $\mathbf{3} \mathrm{hrs}$.
Review of current literature materials for language-disordered children. Active participation for demonstrations and presentations of articles and materials required. Prerequisites: 51C:106; 51C:127; or consent of instructor.
515:226. Disorders of Voice - 3 hrs.
In-depth study of the etiology, diagnosis, and management of voice disorders. Prerequisites: 51C:114; 51C:164; or consent of instructor.
515:228. Aphasia and Related Disorders - 3 hrs .
Diagnosis and remediation of aphasia in adults. Prerequisite: 51 C:164 or consent of instructor.

## 515:229. Dysphagia - 2 hrs.

Diagnosis and remediation of dysphagia in children and adults. Prerequisite: 51C:164.
51S:230. Motor Speech Disorders - 2 hrs.
Neurophysiological bases, differential diagnosis, and clinical management of motor speech disorders in children and adults. Prerequisite: 51C: 127 or consent of instructor.

## 515:232. 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 C : 125 or consent of instructor.
515:250. Introduction to Clinical Assessment - 1 hr .
Process of assessing individuals with communicative disorders, including strategies for interviewing and examining clients; preparation of clinical reports; clinical routine, and practical application. Must be repeated for a total of 2 hours for students planning to major in Speech-Language Pathology at the graduate level. Corequisite: 51 S:255 or consent of instructor.
515:252. Advanced Clinical Assessment -1 hr.
Advanced techniques in diagnostics, incorporating a multi-disciplinary approach. Opportunities provided to observe and administer appropriate evaluative materials. Prerequisite: consent of instructor.
51S:255. Advanced Clinical Practice $-1-4 \mathrm{hrs}$.
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: 51C:155 or consent of inatructor; individuals must be accepted graduate students in the majors of Speech-Language Pathology or Audiology.
515:289. Seminar in Speech-Language Pathology - 2 hrs.
Seminars in special topics to be announced in the Schedule of Classes. No limit on number of times repented as long as no topic is repented. Prerequisite: consent of advisor.

520 Music/530 Music Organizations and Ensemble/
540 Music, Applied/
560 Music Techniques

## 520 Music

520:020. 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.
520:030. 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.
520:102(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. No credit for music major or minor. Prerequisite: junior standing.
520:110. Arts Management in Music - 3 hrs.
Principles and techniques of music management in retail and professional performance sectors. Field trips and guest lecturers supplement classroom experiences. 520:299. Research

## 530 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. Maximum of two (2) credits for organization and ensemble participation may be earned in any one semester. 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:
530:010, 530:110(g). Chorus
(Concert Chorale, UNI Singers, Varsity Men's Glee Club, Women's Chorus, Chamber Choir)
530:012, 530:112(g). Ensemble
530:015, 530:115(g). Band
(Concert Band, Symphonic Band, Basketball Pep Band, Wind Symphony)
530:016, 530:116(g). Jazz Band
530:017,530:117(g). Orchestra
530:018, 530:1 18(g). Marching Band

## 540 Music, Applied

Note: Before registration in Applied Music can be accomplished, the student must 1) successfully complete an audition in the performance area (for composition students, a portfolio of original compositions must be submitted and accepted in lieu of an audition on an instrument or voice), and 2) meet the proficiency standards of the division.

All music majors must be enrolled in applied music continuously from the first semester of residence until satisfactory completion of the Senior Recital. It is expected the Senior Recital will be given in the eighth semester of study (seventh semester for students in the music education program). Credit hours for Applied Music study are classified as follows:

Performance - 3 credit hours
Composition - 2 or 3 credit hours
B.A. and Music Education - 2 credit hours

Secondary - 1 credit hour
Non-Music Major - 1-2 credit hours
One-hour ( 60 minutes) of individual instruction per week in the principal performing area (or a comparable equivalent arrangement of individual and/or small group instruction) is required for music majors. Practice and performance demands for Performance and Composition majors are generally more rigorous than those for the Music Education and B.A. majors. Secondary Instrument students will receive one half-hour ( 30 minutes) of Applied Music instruction each week. Non-Music Majors will receive either one hour or 30 minutes of instruction depending on the number of credit hours elected. Each student's credit hour load for Applied Music will be determined in consultation with a School of Music advisor in advance of registration. All students in the freshman music core will enroll for 2 semester hours of credit each semester. Students approved for the Performance major under the Bachelor of Music degree will register for 3
semester hours in Applied Music beginning in the sophomore year, and Composition majors will register for 3 semester hours in Applied Music beginning in the junior year.
Students approved for the Performance, Piano Performance and Pedagogy, Composition or Conducting majors under the Master of Music Degree will register for two, three or four (2-4) semester hours of credit in Applied Music during the fall or spring semesters in residence. Number of hours will be determined by the applied instructor.

The appropriate applied faculty will determine the level of the student's qualifications (540:0xx, 540:1xx, or 540:2xx) by audition and/or previous work on an instrument or in voice. A 200 number can be assigned only to graduate students in Performance, Piano Performance and Pedagogy, Composition and Conducting programs who have satisfactorily completed an audition and are preparing for a graduate major in voice, instrumentation, or composition. All other graduate applied students will receive $540: 1 \times x(\mathrm{~g})$ credit.

## 540: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.
540:030, 540:130(g), 540:230. Flute
540:031,540:131(g), 540:231. Oboe
540:032, 540:132(g), 540:232. Clarinet
540:033, 540:133(g), 540:233. Bassoon
540:034,540:134(g), 540:234. Saxophone
540:035, 540:135(g), 540:235. French Horn
540:036, 540:136(g), 540:236. Cornet-Trumpet
540:037, 540:137(g), 540:237. Trombone
540:038, 540:138(g), 540:238. Euphonium
540:039, 540:139(g), 540:239. Tuba
540:040, 540:140(g), 540:240. Percussion
540:041, 540:141(g), 540:241. Violin
540:042, 540:142(g), 540:242. Viola
540:043, $540: 143(\mathrm{~g}), 540: 243$. Cello
540:044, 540:144(g), 540:244. String Bass
540:045, 540:145(g), 540:245. Harp
540:046, 540:146(g), 540:246. Plano
540:047, 540:147(g), 540:247. Group Piano
$540: 048,540: 148(\mathrm{~g}), 540: 248$. Organ
540:049, 540:149(g), 540:249. Voice
540:050, 540:150(g), 540:250. Harpsichord
540:051, 540:151(g), 540:251. Group Voice
540:052, 540:152(g), 540:252. Guitar
540:053,540:153(g), 540:253. Jazz Guitar
540:054, 540:154(g), 540:254. Composition
Prerequisites: 580:022; consent of instructor.
540:055, 540:155(g), 540:255. Jazz Improvisation
540:056, 540:156(g), 540:256. Jazz Bass
540:057, 540:157(g), 540:257. Jazz Piano
540:P46. Piano Proficiency - no credit.
Required of all undergraduate majors.
540:189. Senior Recital - no credit.
Required of all seniors. Prerequisite: 3 hours at 100 -level in major applied area. 540:221. Instrumental Conducting - 2-4 hrs.
Prerequisite: admission to the Master of Music in Conducting. (Formerly 560:221.)
540:222. Choral Conducting - 2-4 hrs.
Prerequisite: admission to the Master of Music in Conducting. (Formerly 560:222.)

## 560 Music Techniques

560:010. Double Read Making Techniques -1 hr .
Instruction in the techniques of making and adjusting bassoon, oboe, and English horn reeds. Section 01 for bassoon player; Section 02 for oboe/English horn players. May be repeated for credit.
560:017. Conducting I-Instrumental - 2 hrs.
Prerequisites: 580:014; 580:018; 580:028.
560:018. Conducting 1-Choral - 2 hrs.
Prerequisites: 580:014; 580:018; 580:028.

560:021. Conducting II-Instrumental - $\mathbf{3}$ 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. Prerequisite: 560:017 (with minimum grade of C).
560:022. 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 560:021. Prerequisite: $560: 018$ (with minimum grade of C).
560:030. Diction for Singers 1-1 hr.
Study and application of Italian and English speech sounds for use by singers, coach-accompanists, and teachers of choral music.
560:031. Diction for Singers 11 - 1 hr .
Study and application of German and French speech sounds for use by singers, coach-accompanists, and teachers of choral music. Prerequisite: 560:030.
560:040. Organ Techniques and Church Service Playing - 1 hr.
Selected problems in church service playing and aspects of organ design. May be repeated for credit.
560:045, 560:145(g). Vocal Coaching - 1 hr.
May be repeated for credit. Prerequisite for 560:045: sophomore standing. Prerequisite for $560: 145 \mathrm{~g}$ : junior standing; consent of instructor.
560:052, 560:152(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. (560:052 for freshmen/sophomores; $560: 152 \mathrm{~g}$ for juniors/seniors/graduates.) Prerequisite: consent of instructor.
560:056. Opera Performance I-2 hrs.
Introductory class that explores movement, imagination, and the relationship of words and music. (Formerly 560:051.)
560:121(g). Conducting III-Instrumental - 2 hrs.
Techniques of conducting band and orchestral works; score study and analysis of major works representing all style periods. Class work includes conducting major works in rehearsal. May be repeated for credit. Prerequisites: 560:021; junior standing.
560:122(g). Conducting III-Chorai - 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: 560:022; junior standing.
560:130(g). Music Technology I - 2 hrs.
Acquisition of production skills for music printing, digital recording, sequencing, and arranging, using computer-based and other electronic technology. Prerequisites: 530:0xx (four semesters); $580: 014 ; \mathbf{5 8 0 : 0 1 8 ;} \mathbf{5 8 0 : 0 2 8 ; ~ j u n i o r ~ s t a n d i n g . ~}$ 560:135(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. Prerequisite or corequisite: 540:146 or consent of instructor.
560:145(g). Vocal Coaching - 1 hr. (See 560:045.)
560:152(g). Instrumental Jazz Improvisation - 1 hr . (See 560:052.)
560:155. 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.
560:156(g). Opera Performance II - 2 hrs.
Preparation and presentation of scenes from opera and musical theatre. Prerequisites: 560:056; junior standing. (Formerly 560:151g-01.)
560:157(g). Opera Performance 111 - 2 hrs.
Study of operatic scenes at an advanced level focusing on the emotional and psychological construction of character. Prerequisites: 560:056; junior standing. (Formerly 560:151g-02.)
560:158(g). Opera Performance IV: Period Styles - 2 hrs.
Performance of operatic scenes emphasizing period styles. Prerequisites: 560:157; junior standing. (Formerly $560: 151 \mathrm{~g}-03$.)

560:160(g). Opera Performance V: Roles and Auditions - 2 hrs .
Roles and auditions. Preparation for entrance into the professional world of opera performance. Prerequisites: 560:158; junior standing. (Formerly 560:151g-04.)
560:250. Projects in Music Techniques - 1-3 hrs.
560:252. Advanced Instrumental Jazz Improvisation - 2 hrs.
Advanced concepts of jazz improvisation, including the study of contemporary jazz compositions, complex harmony, chromatic linear resources, and intervallic techniques. Prerequisites: 560:152; graduate standing or consent of instructor.

## 570 Music Education and Methods

570:010. 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.
570:050. 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.
570:130(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. Prerequisites: junior standing; music major.
$570: 138(\mathrm{~g})$. Instrumental Pedagogy - 2 hrs.
Topics vary depending upon instrument and instructor. Advanced techniques of solving physiological and psychological problems of performance. May be repeated with advisor approval. Prerequisites: 570:010 or teaching experience; junior standing.
570:141. 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: 570:050.
570:143. 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 soundbox).
570:148(g). Piano Pedagogy: Elementary - 2 hrs.
Methods and materials related to the teaching of the elementary piano student, including psychological and technical development. Business aspects addressed. Observations of teaching required. Prerequisite: junior standing.
570:149(g). Plano Pedagogy: Current Technological Trends - 1 hr .
Exploration of current trends in technology related to the field of piano and keyboard instruction for children and adults. Exploration of topics appropriate for the independent piano studio. Prerequisite: junior standing.
570:153. Curriculum Development in Music Education - 1 hr.
Development of choral and general music teaching strategies and curriculum for the K-6 general music class. Prerequisite or corequisite: 570:141.
570:155. 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 school music setting. Prerequisites: 560:017; 570:010-06 or -07; 570:141.
570:165. 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 school music setting. Prerequisites: $560: 018 ; 570: 141$; or consent of instructor.

## 570:197(g). Instrumental Upkeep and Repair - 2 hrs.

Areas: woodwinds, strings, brass, and percussion. Laboratory course with practical projects undertaken. Offered for instrumental majors. Prerequisite: junior standing.
570:221. Research Methodology in Music Education - 2 hrs.
Introduction to various research methodologies used in music education. Required of graduate Music Education majors.
570:230. Foundations of Music Education - 3 hrs.
Examination of the foundations and underlying principles of music education.

## 570 Music Education and Methods/

## 580 Music Theory/590 Music History and Musicology

## 570:245. Developments and Trends in Music Education - 2 hrs.

Evolving issues important to music educator. May be repeated for credit. Prerequisites: 570:050; junior standing or consent of instructor.
570:250. Projects in Musk Education - 1-3 hrs.
570:252. Jazz Pedagogy - 2 hrs.
Methods and materials related to teaching of jazz, including jazz ensemble rehearsal techniques, improvisation, jazz theory, and listening techniques. Prerequisite: graduate standing or consent of instructor.
570:255. School Music Administration - 3 hrs.
Philosophy, management and public relations techniques and procedures associated with administration of elementary and secondary music programs. Prerequisite: 570:155 or consent of instructor.
570:257. Plano Padagogy: Intermediate -2 hrs.
Methods and materials related to teaching of the intermediate piano student including psychological development, repertory, technique, the transfer student and use of technology. Specific techniques related to teaching concept of artistry addreseed. Observation of teaching required.

## 570:258. Piano Pedagogy: Group and Adult - 2 hrs .

Materials and instructional techniques related to use of electronic piano lab, teaching of groups/class piano, and teaching adults. Exploration of curriculum planning and the benefits of group instruction in independent studio, public school and university.

## 570:260. Plano Pedagogy: Internship - 1 hr.

Piano teaching assignments, determined in consultation with supervisor. All students required to intern one semester with the group piano program where they observe and teach segments of the class. Other possible internships include: college secondary applied piano, demonstration laboratory. Teaching assignments include conferences with the supervisor. Evaluation through video tape, self-assighment and supervisor's critique. Students in M.M. Piano Performance and Pedagogy program must enroll for a total of three separate 1-hour internships. Corequisite: 570:148, 570:149, 570:257, or 570:258.

## 570:275. Orff Overview and Pedagogy -2 hrs.

Pedagogical and historical overview and introduction to approach, techniques, and philosophy of Orff teaching model. Hands-on learning experience in speech, song, instrumentarium, movement, and improvisation.
570:276. Kodaly Overview and Pedagogy - 2 hrs.
Pedagogical and historical overview and introduction to approach, techniques, and philosophy of Kodaly teaching model. Hands-on learning experience in speech, song, instrumentarium, movement, and improvisation.

## 570:277. Daicroze Overview and Pedagogy - 2 hrs.

Pedagogical and historical overview and introduction to approach, techniques, and philosophy of Dalcroze teaching model. Hands-on learning experience in solfege, eurhythmics, and improvisation.

## 570:278. The Eclectic Curriculum - 2 hrs.

Pedagogically developed to extract the most productive and prominent features of several methods into one formalized curricular structure.
570:279. Classroom Management/Choral - 2 hrs.
Utilization of most productive and successful features of classroom management into one formalized structure via discipline strategies, lesson content, curriculum, and assessment.

## 570:285. Piano Pedagogy: Readings in Plano - 1-2 hrs.

Independent readings from a selected list as approved by piano pedagogy instructor and department head.

## 580 Music Theory

580:010. Introduction to Music Theory - 2 hrs.
Basic skills and vocabulary. 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.
580:011. Theory 1-2 hrs.
Fundamentals of basic musicianship; sceles, intervils, chord forms; analysis and writing involving diatonic harmony. Creative use of materials. Corequisites: 580:015; 580:025.
580:012. Theory II-2 hrs.
Continuation of 580:01 1. Corequisites: 580:016; 580:026.
580:013. Theory lli - 2 hrs.
Materials of musicianship; emphasis on the so-called period of "common practice." Corequisites: 580:017; 580:027.

## 580:014. Theory IV - 2 hrs.

Continuation of $580: 013$ with emphasis on Late Romantic and Contempores eras. Corequisites: 580:018; 580:028.
580:015. Aural Training I- 1 hr.
Corequisites: 580:011; 580:025.
580:016. Aurel Training II - 1 hr. Corequisites: 580:012; 580:026.
580:017. Aural Training III-1 hr.
Corequisites: 580:013; 580:027.
580:018. Aural Training $\mathbf{N} \mathbf{- 1} \mathbf{~ h r}$.
Corequisites: 580:014; 580:028.
580:022. Composition and Music Technology - 3 hrs.
Creative work in primary forms with emphasis on computer applications in music. (For applied composition, see 540:054.) Prerequisites: 580:014; 580:018 580:028 (with an average grade of C or higher); or consent of instructor.
580:025. Sight-Singing I -1 hr.
Corequisites: $580: 011 ; 580: 015$.
580:026. Sight-Singing II 1 hr.
Corequisites: 580:012; 580:016.
580:027. Sight-Singing III - 1 hr.
Corequisites: 580:013; 580:017.
580:028. Sight-Singing IV -1 hr .
Corequisites: 580:014; 580:018.
580:110. Analysis of Music - 2 hrs.
Study of forms and procedures prevalent in the works of major composers from 16th century to present. Prerequisite: 580:013.
$580: 120(\mathrm{~g})$. Sixteenth Century Counterpoint - 3 hrs.
Vocal polyphonic style of 16th century. Analyris. Creative work in vocal formas motet, madrigal, mass. Prerequisites: 580:013; junior standing.
$\mathbf{5 8 0 : 1 2 1}$ (g). Eighteenth Century Counterpoint - 3 hrs.
Contrapuntal technique and instrumental forms of 18 th century. Analysis and creative work in representative forms. Prerequisites: $580: 013$; junior standing.
580:126(g). Orchestration - 3 hrs.
Transcribing or composing for orchestra, band, smaller instrumental ensembleas voice with orchestra, voice with band, or chorus with band or orchestra for various levels. Prerequisites: 580:013; junior standing.
580:127(g). Jazz Arranging I - 2 hrs.
Basic skills for jezz composer/arranger, including instrument ranges, transposition, chord terminology, voicing and doubling principles, harmonization, and chord substitution, form, and score organization. Emphasis on writing for jazz combo instrumentation up to 5 horns. Prerequisites: 580:012; junior standing.
580:128(g). Jazz Arranging II - 2 hrs.
Continuation of $580: 127$. Emphasis on writing for full big band, including augmented instrumentation, contrapuntal and formal problems, score study and analysis. Prerequisites: $580: 127$; junior standing.
$580: 180(\mathrm{~g})$. 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. Does not count toward minimum degree requirements. Prerequisite: junior standing.

## 580:210. Analytical Tectuniques I -3 hrs.

Investigation of music from chant through 18th century. Major composers and their works examined in historical context, emphasizing development of Western tradition. Prerequisite: $580: 180$ or passing score on Graduate Theory Diagnostic Examination.
580:211. Analytical Techniques 11 - 3 hrs .
Continuation of 580:210. Investigation of music written from 1800 to present day. Major composers and their works examined in historical context, emphasizing development of Western tradition. Prerequisite: 580:180 or passing score on Graduate Theory Diagnostic Examination.
580:250. Projects in Music Theory - $1-3$ hrs.

## 590 Music History and Musicology

590:005. Introduction to Music Studies -2 hrs.
Exploration of basic music concepts and repertories. Music listening techniques. 590:010. History of Music I - 3 hrs.
Survey of musical trends from all eras. Early Christian era through Bach (1750). Prerequisite: 590:005.

590:011. History of Music II - 3 hrs.
Continuation of 590:010. Classical period to present. Prerequisite: 590:005.
590:110(g). Music History-Middie Ages and Renaissance - 3 hrs.
Prerequisites: 590:010; 590:011; junior standing.
590:111(g). Music History-Baroque - 3 hrs.
Prerequisites: 590:010; 590:011; junior standing.
590:112(g). Music History-Classic - 3 hrs.
Prerequisites: 590:010; 590:011; junior standing.
590:114(g). Music History-Romantic - 3 hrs.
Prerequisites: 590:010; 590:011; junior standing.
590:115(g). Music History-20th Century - 3 hrs.
Prerequisiten: 590:010; 590:011; junior standing.
590:150(g). American Music - 3 hrs.
History of our nation's music from 1620 to present. Prerequisites: 590:011; junior standing.
590:151 (g). Music of Wortd Cultures - 3 hrs .
Study of non-Western music; Africa, Islam, India, Indo-China, Indonesia, China, and Japan, and role of music in these cultures. Prerequisite: junior standing.
590:160(g). Jazz History and Styles -3 hrs.
Evolution of jazz styles and their relationship to social, economic, and political moods of the period; in-depth and detailed study of history and development of jazz in America. Prerequisite: junior standing.

## $\mathbf{5 9 0 : 1 8 0}(\mathrm{g})$. Music History Survey for Graduates - 1-2 hrs.

Review of 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. Does not count toward minimum degree requirements. Prerequisite: junior standing.
590:221. Music Research and Bibliography $\mathbf{- 2}$ hrs.
Acquaints student with source materials in music and in locating thesis topic. Should be taken during first semester in residence by all graduate music students.
590:250. Projects in Music History and Literature - 1-3 hrs.
590:285. Readings in Music History - 1-3 hrs.
Prerequisite: consent of Graduate Coordinator in Music.
590:289. Seminar in Music History - 3 hrs.
Musicological research into the various areas of music.

## 595 Performance Literature and <br> Repertory

595:120(g). Performance Literature: - 2 hrs.
Study of performance literature available for specific instrument or voice. Combination ensemble-literature course for the performer. Prerequisite: junior standing.
595:120(g)-01. Woodwinds.
595:120(g)-02. Brass.
595:120(g)-03. Plano I.
595:120(g)-04. Piano II.
595:120(g)-05. Organ.
595:120(g)-06. Strings.
595:120(g)-07. Percussion.
$\mathbf{5 9 5 : 1 2 0}(\mathrm{g})-08$. Voice I, Survey of Song Literature. Survey of vocal literature, historical background and style: 17th century through 20th century. Prerequisite: junior standing
$595: 120(\mathrm{~g})-09$. Volce II, Art Song: German Language. Study of vocal literature, historical background, style, and interpretation: chief composers of the German Lied, ca. 1750 (C.Ph.E.Bach) through 20th century. Non-performance. Prerequisites: 595:120-08; junior standing.
595:120(g)-10. Voice III, Art Song: English Language. Study of vocal literature, historical background, style, and interpretation: art song of the U.S., 18th century (Francis Hopkinson) through 20th century and British art song, 17th century (Henry Purcell) through 20th century. Non-performance. Prerequisites: 595:120-08; junior standing.
595:120(g)-11. Voice IV, Art Song: Other Modern Languages. Study of vocal literature, historical background, style, and interpretation: art song from selected countries/cultures including Belgium, Czechoslovakia, France, Holland, Hungary, Italy, Latin America, Poland, Russia, Scandinavia, Finland, Spain, and Switzerland. Non-performance. Prerequisites: 595:120-08; junior standing.

## 595:129(g). American Music Theatre - 3 hrs .

Historical development of Americen music theatre from its roots in European forms and traditions to present day. Emphasis on stylistic traits of each style period. Prerequisite: junior standing.

## 595:130(g). History of Opera Literature - 3 hrs.

Development of opera from its inception (c. 1600) to present. Prerequisite: junior standing.
595:131(g). History and Literature of Large Choral Forms - 3 hrs.
Development of large choral forms from the Renaissance to present. Emphasis on the Mass, contata, oratorio, passion, anthem, and contemporary uses of the chorus. Prerequisite: junior standing.
595:140(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 growth of the orchestra as an ensemble. Prerequisite: junior standing.
595:142(g). History and Literature of the Wind Band - 3 hrs.
Growth and development of wind music from Gabrieli to present. Prerequisite: junior standing.

## 600 Art

600:002. Visual Inventions - 3 hrs.
Studio course: experiences in critical responses to the visual arts through active involvement with various creative processes and media; relationship of the visual arts to other fields of human endeavor.
600:004. Visual Perceptions - 3 hrs.
Lecture course: experiences in critical responses to the visual arts through analyses of artworks and artistic processes; relationship of the visual arts to other fields of human endeavor.
600:018. Drawing I - 3 hrs.
Emphasis on growth in perception of visual form. Range of materials and subject matter.
600:019. Drawing II -3 hrs .
Continuation of 600:018 with greater emphasis upon self-direction. Prerequisite: 600:018.
600:025. Graphle Design I - 3 hrs.
Introduction to graphic design concepts and methods. Basics of typography letter forms, layout and print production. Prerequisite: The Foundations Program is a prerequisite for Art Majors and Minors only.
600:026. Two-Dimensional Concepts - 3 hrs.
Beginning experiences in conceiving and making in two dimensions; emphasis on interaction between work and idea, skills in art making, and common vocabulary of art.
600:027. Three-Dimensional Concepts -3 hrs .
Beginning experiences in conceiving and making in three dimensions; emphasis on interaction between work and idea, skills in art making, and common vocabulary of art.
600:028. Monoprinting - 3 hrs.
Experimentation in creating unique works with printing press. Focus on development of imagery using a variety of means, techniques, and mixed media. No previous experience in printmaking is needed.
600:032. Creative Photography I- 3 hrs.
Introduction to use of photography as a means of creative expression. Basic camera operations, black and white processing and printing, and presentation methods. Assignments directed toward understanding photographic method and content. Prerequisite: The Foundations Program is a prerequisite for Art Majors and Minors only.

## 600:033. Printmaking t: Etching - 3 hrs.

Beginning experiences in fine art printmaking, concentrating on intaglio techniques. Prerequisite: The Foundations Program is a prerequisite for Art Majors and Minors only.
600:035. Printmaking I: Relief Processes - 3 hrs.
Beginning experiences in fine art printmaking, concentrating on relief processes including woodeut. Prerequisite: The Foundations Program is a prerequisite for Art Majors and Minors only.
600:037. Sculpture I - 3 hrs.
Introduction to essential methods and materials of sculpture, including modeling, carving, casting, and metal and wood fabrication techniques. Prerequisite: The Foundations Program is a prerequisite for Art Majors and Minors only.

600:040. Survey of Art History 1 - 3 hrs.
Introduction to history of art; Ancient through Medieval.
$\mathbf{6 0 0 : 0 4 1}$. Survey of Art History II - 3 hrs.
Introduction to history of art: Renaissance through Modern.

## 600:050. Ceramics I - 3 hrs.

Introduction to basic techniques for forming and finishing ceramic objects. Development of handbuilding and wheelthrowing skills contributing to creative exploration in ceramics. Assignments directed toward understanding both functional and sculptural aesthetic concerns in ceramics. Prerequisite: The Foundations Program is a prerequisite for Art Majors and Minors only.
600:051. Ceramics II - 3 hrs.
Continuation of 600:050 with further development of student's understanding of firing techniques and formulation of clay and glazes. Prerequisite: 600:050.
600:060. Performance Art -3 hrs.
Emphasis on action over object production; exploration of interdisciplinary art making in real space and time as means of creative expression; examination of various approaches to performance including Dada, Fluxus, Japanese Butoh and Conceptualism. Prerequisite: The Foundations Program is a prerequisite for Art Majors and Minors only.

## 600:074. Jewelry/Metals I- 3 hrs.

Forming, joining, decorating, and combining precious and non-precious metals with other materials. Prerequisite: The Foundations Program is a prerequisite for Art Majors and Minors only.
600:080. Palnting I-3 hrs.
Experience in various painting media. Prerequisite: The Foundations Program is a prerequisite for Arts Majors and Minors only.
600:081. Painting II -3 hrs.
Continuation of $600: 080$ with greater emphasis upon self-direction. Prerequisite: 600:080.

## 600:090. Art and the Child - 3 hrs.

Primarily for elementary education student with little or no experience or knowledge of art. Study of psychological and artistic development of elementary school student with emphasis on creativity within elementary school and art curriculum.

## 600:091. Elementary Art Education I-2 hrs.

Philosophy and methods of art education in grades preschool through 6th grade with an emphasis on creating multicultural curriculum. Exploration of ways in which children learn and develop in the visual arts. Requires field experience. Prerequisite: Foundations Program. Corequisite: Level I in the Professional Sequence, or consent of instructor.

## 600:093. Secondary Art Education I- 3 hrs.

Content, methods, scope and sequence of instruction for teaching art in grades 7-12. Relating educational theory and strategies to visual art experiences. Exploration of ways to integrate studio art with art history, art criticism, aesthetics, and multiculturalism. Requires field experience. Prerequisites: 600:091; 600:120. Corequisite: Level II of Professional Sequence, or consent of instructor. 600:108. Principles and Techniques of Arts Management I- 3 hrs .
Study of varied aspects of arts management including operating policies, facilities, staffing and fund raising. Development of skills and knowledge necessary for basic understanding of arts management.

## 600:109. Principles and Techniques of Arts Management II - 3 hrs.

Continuation of $600: 108$. Examination of areas such as grantsmanship, legal issues, contracts and budgets as they affect various arts institutions. Prerequisite: 600:108.
600:110. Art Gallery and Museum Management - 3 hrs.
Exploration of particular management problems of art museum operations, including role of museum institution as public trust: object management, care and policy; exhibition curatorship and design; museum educational components; accreditation procedures and professional standards. Exploration of history of the development of muscums.
600:111. Life Drawing - 3 hrs.
Drawing from model using variety of media. May be repeated for credit. Prerequisite: 600:019.
600:112. Printmaking II - Screenprint -3 hrs.
Introduction to screenprinting processes. Prerequisite: The Foundations Program is a prerequisite for Art Majors and Minors only.
600:118. Drawing ill -3 hrs.
Prerequisite: 600:019 or 600:111.

600:120. Elementary Art Education II - 3 hrs.
Emphasis on application of theory to practice in elementary art curriculum Function of interdisciplinary approach, critical analysis and multicultural scopt in teaching practice. Increased concentration on children's aesthetic develop, ment as revealed in field experience. Introduction to use of computer as teach ing resource. Prerequisite: 600:091.
600:121. Secondary Art Education II - 2 hrs.
Continuation of 600:093 with emphasis on the development of a teaching philo ophy and methods of assessment. Preparation of a teaching portfolio, and devel opment of teaching unit. Requires field experience. Prerequisite: 600:093.
600:124. Jewelry/Metals il -3 hrs.
Continuation of 600:074 with greater emphasis on self-direction. Contemporat jewelry/metals history, electro-forming, anodization of aluminum and advancel stone setting. Prerequisite: 600:074.
600:125. Graphic Design II -3 hrs.
Exploration of approsches to illustration and integration of type and graphi images; class problems and design projects for university and community Prerequisite: 600:025.
600:126. Graphic Design III-3 hrs.
Advanced problems in graphic design. Design systems, corporate identity pack aging, and signage. Prerequisite: 600:125.

## 600:127. Publication Design - 3 hrs.

Lecture-studio course on layout and typography of various types of publications content research and analysis, display, text type and illustration trends, desigi, formats, and specialized publications and audiences. Prerequisite: 600:125.
600:128. Graphic Dealgn-lllustration - 3 hrs.
Basic media, techniques, paper selection, and tools for execution of solutiond ranging from black and white line to full-color, continuous tone in 2D and 3D form. Consideration of specialized commercial illustration problems imposed by mechanical production requirements. Historical overview of stylee Prerequisite: 600:125.
600:129. Typography - 3 hrs.
Exploration of development of typography as an art form; study of historical development of typography, anatomy of type, and compositional considerations: in typography selections. Emphasis on aesthetic use of typography as a desigr element. Prerequisite: 600:125.
$\mathbf{6 0 0 : 1 3 0}$. Creative Photography II -3 hrs .
Continuation of 600:032 with emphasis on development of individual's ideas and directions; introduction to view camera, studio lighting, and computer-generat 4 ed imagery and presentation and exhibition techniques. Prerequisite: 600:032 or equivalent.
600:131. Creative Photography III - 3 hrs.
Extension of photography as creative image making; in-depth look at processee, criticism, and student's own ideas and directions in photography. Prerequisited 600:130.
600:132. Color Photography - 3 hrs.
Introduction to most commonly used color photographic processes including transparency film, negative films, negative and reversal printing papers. Prerequisite: 600:130 or equivalent.
600:134. Printmaking II: Lithography -3 hrs.
Introduction to fine art printmaking, concentrating on fine art lithography/ processes and applications. Prerequisite: The Foundations Program is a prerequisite for Art Majors and Minors only.

## 600:136. Photo Processes in Printmaking - 3 hrs,

Experimentation with use of photo techniques and computer lechnology in various processes of printmaking. No photo experience necessary. Prerequisite: The Foundations Program is a prerequisite for Art Majors and Minors only.
600:137. Sculpture $\mathrm{H}-3 \mathrm{hrs}$.
Exploration of contemporary issues in sculpture through materials and processes selected by the individual. Emphasis on understanding interrelationships between specific concepts, forms, and materials. Prerequisite: 600:037.
600:138. Research Methods and Writing in Art History -2 hrs.
Introduction to research methods and writing in Art History. Cannot be used to satisfy art history requirements in the studio or art education emphases. Prerequisite: Completion of Foundations Program.
600:139(g). Ancient Near Eastern Art - 3 hrs.
Examination of various developments in the Ancient Near East, e.g., Mesopotamia, Anatolia, and the Levant, from formative periods to first millennium, primarily through art and architecture. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing.

## 600:140(g). Ancient Egyptian Art - 3 hrs.

Examination of Egyptian culture from early phases of Pre-Dynastic to first millennium, primarily through art and architecture. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing.
600:141(g). Art History - 3 hrs.
600:141(g)-01 Medieval Art. Examination of various developments in Europe and Western Asia from Late Roman through Gothic, primarily through art and architecture. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing. 600:141(g)-02 Northern Renaissance Art. Examination of Northern European art from the 14th to 16 th centuries. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing.
600:141(g)-03 Indian Art. Examination of art and culture of India from Indus Valley Civilization through Mughal Dynasty. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing.
600:141(g)-04 Japanese Art. Examination of art and culture of Japan from Neolithic through Tokugawa periods. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing.
600:141(g)-05 Ancient Greek Art. Examination of various developments in the Greek world from Bronze Age through Hellenistic Period, primarily through art and architecture. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; $600: 041$; junior standing. 600:141(g)-06 Ancient Roman Art. Examination of various developments in the Roman world, from Etruscan through Roman Imperial, primarily through art and architecture. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing. 600:141(g)-07 Chinese Art. Examination of art and culture of China from Neolithic Period through Qing Dynasty. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing.
600:142(g). Itailan Renalssance Art - 3 hrs.
History of 14th, 15 th, and 16 th century Italian art. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing.

## 600:144(g). Baroque and Rococo - 3 hrs.

History of Baroque and Rococo art in 17 th and 18 th century Europe. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041: junior standing.
600:146(g). 19th Century European Art - 3 hrs.
Napoleonic art to Art Nouveau. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing.
600:147(g). Aslan Art - 3 hrs.
Introduction to the arts of India, Southeast Asia, China and Japan. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing.

## 600:151(g). Eariy 20th Century Art - 3 hrs.

Art from 1900 to mid-20th century. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing.
600:152(g). Late 20th Century Art - 3 hrs .
Art since mid-20th century. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing.
600:153(g). History of Photography - 3 hrs.
Survey of history and evolution of photography since its invention in 1839 to present day. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing. $\mathbf{6 0 0 : 1 5 4}(\mathrm{g})$. History of Design -3 hrs.
Overview of European and American design since 1850. Primary emphasis on graphic design, with secondary focus on architectural and industrial design. Prerequisite for non-art majors and minors: junior standing. Prerequisites for Art Majors and Minors: 600:040; 600:041; junior standing.
600:170. Jewelry/Metals 111 - 3 hrs.
Continuation of $600: 124$ with greater emphasis on self-direction. Techniques include raising, lathe usage, metal inlay, engraving, mokume, granulation, and leaf metal application. Prerequisite: 600:124.

600:171 (g). Ceramic Raw Materials and Glaze Calculations - 3 hrs.
In-depth understanding of origins and use of ceramic materials in making art. Development of clay bodies and formulation of glazes. Discussion of health and safety concerns when using ceramic materials in studio or classroom. Prerequisite: 600:051 or consent of instructor, junior standing.
600:172. Ceramics III - 3 hrs.
Focused exploration of lowfire, mid-temperature, and highfire ceramics techniques. Emphasis on development of individuals' ideas and direction. Relating personal aesthetic concerns to historical and contemporary work in area of ceramics. Prerequisite: 600:051.
600:174. Printmaking III -3 hrs.
Advanced work in printmaling. Etching, screen printing, woodcut, litho and related processes. In-depth exploration of student-selected processes. Emphasis on development of individual interest and direction. Prerequisite: 600:134.
600:175. Undergraduate Studio - $1-6 \mathrm{hrs}$.
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. jewelry/Metals; 5. Painting; 7. Photography; 8. Printmaking; 9. Sculpture; 10. Watercolor. Credit to be determined by instructor at time of registration. May be repeated for credit. Prerequisites: 9 hours in studio area chosen; consent of instructor.
600:177. Sculpture lil - 3 hrs.
Focused exploration of concepts and media which reflect interests of student. Emphasis on developing a personal aesthetic, and conceptual and critical base for continued work. Prerequisite: 600:137.
600:180. Painting IIf -3 hrs.
Prerequisite: 600:081.
600:189. B.F.A. Exhibition - no credit.
600:191. 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 for Art Majors and Minors: completed Foundations Program; minimum of three 100 -level art history courses, including one pertinent to seminar; consent of instructor. For non-art major: junior standing; completion of 100 -level courses in area of study pertinent/related to seminar; consent of instructor.
600:192. B.F.A. Seminar: Critical Issues in Contemporary Art -2 hrs.
Critical analysis and discussion of contemporary art. Prerequisites admission to the B.F.A. degree program; junior standing; or consent of department head.
600:196. B.F.A. Project I- 3 hrs.
Investigation of individual concepis and techniques in studio preparation for Bachelor of Fine Arts exhibition. Prerequisites: admission to B.F.A. program; senior standing; consent of instructor.

## 600:197. B.F.A. Project $11-3$ hrs.

Investigation of individual concepts and techniques culminating in professional Bachelor of Fine Arts exhibition. Prerequisites: 600:196; consent of instructor; B.F.A. exhibition must be scheduled concurrently.

600:198. Independent Study.
600:275. 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. Sections: 1. Ceramics; 2. Drawing; 3. Graphic Design; 4. jewelry/Metals; 5. Painting; 6. Photography; 7. Printmaking; 8. Sculpture. Prerequisite: consent of Chairperson, Graduate Studies in Art.

600:200. Seminar! Critique and Analysls -2 hrs.
Critical analysis and discussion of contemporary art. May be repeated for a maximum of 4 hours.

## 600:295. Seminar in Teaching Art - 3 hrs.

Specific art education relating to public schools with emphasis on continuity of art activity. Satisfies the special methods elective for the professional core.
600:297. Practicum.
600:299. Research.

## 620 English Language and Literature

620.002. College Writing Basics - 3 hrs.

Prepares students with limited writing experience for 620:005; recommended for students who have ACT English scores of 17 or less. Emphasis on reading and writing a variety of increasingly complex expository texts. Attention to developing and organizing ideas, revising, editing, and adapting written discourse for readers. Does not meet General Education writing requirement; does not count toward minimum hours required for baccalaureate degree. No credit if prior credit in another college writing course. May be used to help satisfy UNI's high school English admissions requirement.
620:005. College Reading and Writing - 3 hrs.
Recommended for students who have ACT' English and Reading scores of 18-26; students who have ACT' English scores of 17 or less are advised to take 620:002 first. Emphasis on critical reading and the writing of a variety of texts with attention to audience, purpose, and rhetorical strategies. Attention to integrating research materials with students' critical and personal insights. Satisfies the General Education writing and reading requirement. No credit if prior credit in 620;015 or 620:034. Prerequisite: UNI's high school English admissions requirement.
620:015. Exposition and Report Writing - 3 hrs.
Conducting library research; writing and editing research reports; using writer's handbook and style manual to prepare professional manuscripts. Satisfies the General Education writing and reading requirement. Prerequisite: combined ACT English and Reading scores of 54 or above or $620: 005$ or consent of department.

## 620:020. Science Fiction - 3 hrs.

Development of modern science fiction. Current trends; parallels and contrasts between science fiction and "literary" fiction. Prerequisite: 620:005.

## 620:031. Introduction to Literature - 3 hrs.

Understanding and appreciation of 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 620:034.
620:034. Critical Writing About Literature - 3 hrs.
Study of techniques of various literary forms including poetry, drama and fiction. Attention to processes and purposes of critical and scholarly writing and to documentation. Introductory course for English Department majors and minors. Prerequisite: combined ACT English and Reading scores of 54 or above, or 620:005.

## 620:035. Introduction to Film - 3 hrs.

Examination at introductory level of four film genres: narrative, documentary, animated, experimental; preparation for further work, either individually or academically. Prerequisite: 620:005.
620:040. Multicultural Literature - 3 hrs.
Selected texts from multicultural literatures of the United States (e.g., African American, Asian American, Hispanic American, Jewish American, Native American); may also include texts from postcolonial literatures. Prerequisites: 620:005 or 620:015 or 620:034.

## 620:048. Major British Writers - 3 hrs.

Selected works - including poetry, drama, prose fiction, and non-fiction - in literary tradition of England and British Isles from Medieval Period to Twentieth Century. Prerequisite or corequisite: 620:034.
620:053. Major American Writers - 3 hrs.
Selected works - including poetry, drama, prose fiction, and non-fiction - in literary tradition of United States from colonial times to present. Prerequisite or corequisite: 620:034.

## 620:055. Native American and Chicano Lhterature - 3 hrs.

Introductory study of selected American Indian and Chicano literature in a variety of forms: fiction, poetry, drama, myth, and legend. Prerequisite: 620:005.
620:060. Tradition of European Literature to 1650 - 3 hrs.
Masterpieces of Western literature from the beginnings to 1650 . Prerequisite: 620:005.

## 620:070. Beginning Poetry Writing - 3 hrs.

Attention to fundamental elements of poetry - image, metaphor, rhythm, meter, and word-music - through reading and writing. Prerequisite: 620:005.
620:071. Beginning Fiction Writing - 3 hrs.
Attention to fundamental elements in the writing of fiction including setting, narration, plot, characterization, and dialogue. Prerequisite: 620:005.

## 620:103. The Personal Essay - 3 hrs.

Writing various types of essays (e.g., narrative, descriptive, expository, persuad sive); attention to stylistic questions and possibilities. Prerequisites: 620:005 or 620:015 or 620:034; junior standing or consent of instructor.
620:104. Persuasion and Proposal Writing - 3 hrs.
Writing and editing major types of persuasive prose in professional writing setting reviews and evaluations; problem-analysis-and-recommendation reports; proposi als. Prerequisite: 620:015 or consent of instructor based on student portfolio.
620:105(g). Technical Writing - 3 hrs.
Writing a variety of technical documents with emphasis on definitions and instructions, manuals and handbooks. Attention to audience, purpose, organ zation of presentation, format, objective language, efficient style. Prerequisite 620:015 or consent of instructor based on student portfolio; junior standing.
620:107(g). Professional Editing - 3 hrs.
History and theory of editing with applications to scholarly and professional settings. Editing and proofreading documents for technical accuracy, formaty grammar, and style. Prerequisites: 620:015 or consent of instructor based on student portfolio; word processing and e-mail proficiency; junior standing.
620:108(g). Craft of Poetry - 3 hrs.
Written exercises in forms, patterns, and techniques of poetry. Readings in poet 4 ry, including contemporary poetry with particular attention to poetic structures and strategies. Prerequisites: 620:031 or $\mathbf{6 2 0 : 0 3 4 , 6 2 0 : 0 7 0}$, or consent of instruc-4 tor; junior standing.

## 620:109(g). Craft of Fiction - 3 hrs.

Written exercises in forms, patterns, and techniques of fiction. Readings in fiction with particular attention to narrative structures and strategies Prerequisites: $620: 031$ or $\mathbf{6 2 0 : 0 3 4}, \mathbf{6 2 0 : 0 7 1}$, or consent of instructor; junios standing.
620:113(g). British Drama to 1900 - 3 hrs.
Emphasis on contemporaries of Shakespeare such as Marlowe, Jonson, and Webster; includes selected medieval, Restoration, 18th- and 19th-century dramas. Prerequisites: 620:034 or consent of instructor; junior standing.

## 620:115(g). Modern Drama - 3 hrs.

Twentieth-Century American, British, and European drama to 1945; may include drama from other cultures. Prerequisites: $620: 034$ or consent of instructor; junior standing.

## 620:116(g). English Renaissance - 3 hrs.

Non-dramatic literature of the English Renaissance, 1485-1660. Prerequisitess 620:034 or consent of instructor; junior standing.
620:117(g). 18th-Century British Literature -3 hrs.
Major writers of satire, verse, and prose including Dryden, Swift, Pope, and Johnson. Prerequisites: 620:034 or consent of instructor, junior standing.
620:118(g). British Romantic Writers - 3 hrs.
Early 19th-Century writers such as Wordsworth, Keats, Hazlitt, and Scott. Prerequisites: 620:034 or consent of instructor; junior standing.
620:119(g). British Victorian Writers - 3 hrs.
Later 19th-Century writers of verse and prose such as Tennyson, Browning, Arnold, Carlyle, Mill and Ruskin. Prerequisites: 620:034 or consent of instructor, junior standing.
620:120(g). 20th-Century British Novel - 3 hrs.
Prerequisites: 620:034 or consent of instructor; junior standing.
620:121(g). The American Renaissance - 3 hrs.
Major writers of the 1840's and 1850's: Hawthorne, Melville, Emerson, Thoreau, and early Whitman. Prerequisites: $620: 034$ or consent of instructor; junior standing.
620:123(g). American Realism and Naturalism to WWI - 3 hrs.
Literary selections 1870 to World War I; emphasis on fiction. Prerequisites: 620:034 or consent of instructor; junior standing.
620:124(g). 20th-Century American Novel - 3 hrs.
Prerequisites: 620:034 or consent of instructor; junior standing. $\mathbf{6 2 0 : 1 2 6 ( g ) . ~ S h o r t ~ F i c t i o n ~ - ~} 3$ hrs.
Prerequisites: 620:034 or consent of instructor; junior standing. 620:128(g). Images of Women in Literature - 3 hrs.
Images, symbols, and myths of women in literature; feminist criticism. Prerequisites: 620:034 or consent of instructor; junior standing.
620:134(g). Modern Brtish and American Poetry - 3 hrs.
Since 1914. Prerequisites: 620:034 or consent of instructor; junior standing.

## 620:139(g). Film and Literature -3 hrs .

Attention to cinematic adaptations of various literary prose works; aesthetic, cultural, genre, and other factors that influence adapting print to film media. Prerequisites: 620:034 or consent of instructor, junior standing.
620:142(g). Film History - 3 hrs.
Survey of artists, historical movements, and styles from silent and sound eras; focus on Classical Hollywood and its alternatives (Soviet, Italian Neorealism, French New Wave, and New German Cinema). Prerequisites: 620:034 or 620:035 or consent of instructor; junior standing.
620:144(g). Chaucer - 3 hrs.
Poetry of Chaucer, may include other medieval writers. Prerequisites: 620:034 or consent of instructor, junior standing.
620:147(g). Milton -3 hrs.
Milton's major English poetry and prose. Prerequisites: 620:034 or consent of instructor; junior standing.
620:148(g). Shakespeare - 3 hrs .
Prerequisites: 620:034 or consent of instructor; junior standing.
620:153(g). Major American Poets to 1900 - 3 hrs.
Prerequisites: 620:034 or consent of instructor, junior standing.
620:155(g). European Novel - 3 hrs.
Major works of prose fiction by writers such as Cervantes, Stendhal, Flaubert, Dostoevsky, Tolstoy, and Mann (in English translation). Prerequisites: 620:034 or consent of instructor; junior standing.

## 620:156(g). British Novel to $1900-3$ hrs.

Major fiction writers such as Fielding, Sterne, Austen, Dickens, Thackeray, the Brontes, George Eliot, and Hardy. Prerequisites: 620:034 or consent of instructor; junior standing.
620:157(g). African American Literature - 3 hrs.
Study of African American literature in a variety of forms and genres; Black Vernacular (spirituals, blues, jazz, folktales), slave narratives, poetry, fiction, drama, film, and autobiography. Prerequisites: 620:034 or 620:040 or consent of instructor; junior standing. (Formerly 620:057.)
620:158(g). Aslan American Literature -3 hrs .
Texts by North American writers of Asian descent, selected from fiction, drama, poetry, memoirs, oral history, and film. Attention to significant themes, literary innovations, and cultural sensitivity in reading and interpreting ethnic literature. Prerequisites: 620:034 or 620:040 or consent of instructor; junior standing.
620:161(g). Literary Criticism - 3 hrs.
Important modern and traditional critical positions and their application to imaginative literature. Prerequisites: 620:034 or consent of instructor; junior standing.
620:163(g). Theory and Practice of Writing - 3 hrs.
Detailed examination and application of major theories of writing: formal, cognitive, social, expressive, rhetorical, contextual. Prerequisites: 620:015 or 620:034; junior standing.
620:165(g). Literature for Young Adults - 3 hrs.
Reading and evaluation of literature suitable for adolescents. Prerequisites: 620:034 or consent of instructor; junior standing.
620:168(g). Teaching Media Literacy - 3 hrs.
Theory and practice of teaching media literacy skills; attention to integrating the study of media into existing language arts curricula. Prerequisite: junior standing. 620:172(g). Literary Nonfiction - 3 hrs.
Study of artful texts about actual people, places, and events: selected from memoirs and autobiographies, biographies, histories, journalism, and nature, travel, science, and essay writing. Attention to techniques used in creative nonfiction and to issues of accuracy, privacy, and "truth." Prerequisites: 620:034 or consent of instructor; junior standing.
620:174(g). Poetry Workshop - $1-6$ hrs.
Advanced peer workshop focusing on relevant genres, techniques, and poets with emphasis on the contemporary poetic situation. May be repeated for credit up to a maximum of 9 hours. Prerequisites: 620:108 or consent of instructor; junior standing.
620:175(g). Flction Werkshop - 1.6 hrs .
Advanced peer workshop focusing on refining techniques of fiction writing and on contemporary fiction. May be repeated for credit up to a maximum of 9 hours. Prerequisites: 620:109 or consent of instructor; junior standing.
620:177. Professional Writing Workshop - 3 hrs.
Project teams manage significant professional writing assignments from initial information gathering and design to final publication and distribution. Emphasis on professional practice and production teamwork. Projects vary;
may be repeated for credit. Prerequisites: two of the following - 620:104; 620:105; 620:107 or consent of instructor based on student portfolio; word processing and $e$-mail proficiency.

## $620: 182(\mathrm{~g})$. Film Theory and Critidism - 3 hrs.

Survey of major approaches to cinema including both the early schools (Realist, Genre Studies and Auteurist) and the post-structural explosion (Marxist, Psychoanalytic, and Contextual Studies). Prerequisites: 620:034 or 620:035 or consent of instructor; junior standing.
620:184(g). Sexed/Gendered Literature - 3 hrs .
Exploring cultural constructions of gender and sexuality in literature; may include other media. Special topic may be listed in Schedule of Classess may be repeated for credit by taking different topics. Prerequisite: junior standing.

## 620:188(g). Seminar in Literature - 3 hrs.

Topic to be announced in Schedule of Classes. Prerequisites: 620:034 or consent of instructor; junior standing.

## 620:190(g). The Teaching of English - 3 hrs .

Preparation for teaching secondary English (7-12); teaching of literature and media, reading and writing, speaking and listening; attention to curriculum design, language development and use, and evaluation. Prerequisites; 200:128; 200:148; 250:150; junior standing.

## 620:191 (g). Seminar for the Student Teacher - 1 hr .

Intensive course to integrate $620: 190$ with the student teaching experience. Offered on credit/no credit basis only. Prerequisite: junior standing. Corequisite: 280:138.
620:193(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; attention to development of writing and language abilities, course design, and implementation and evaluation strategies. Prerequisites: 620:005 or consent of instructor; junior standing.
620:194. Practicum: Tutoring Writing -3 hrs.
Training in processes of writing and techniques of tutoring writing application of training to tutoring students in writing skills and writing projects. Prerequisites: 620:005; sophomore standing; consent of instructor.
620:195(g). Seminar in Teaching College Writing -3 hrs.
Preparation to teach introductory college writing; focus on designing syllabi, planning classes, and creating writing assignments. Attention to theoretical issues that inform classroom prectice. Prerequisites: senior standing; consent of instructor.
620:197. Professional Writing Practicum -3 hrs .
Students undertake individual, supervised writing, editing, and document preparation assignments outside the classroom environment. Assignments vary; may be repeated for credit. Prerequisite or corequisite: 620:177; consent of instructor based on student portiolio.
620:198. Independent Study.
620:201. Introduction to Graduate Study In English - 3 hrs.
Introduction to problems, techniques, and tools of graduate-level study and research in English.
620:206. Feminist Literary Theorles and Practice - 3 hrs.
Examination of how writers transform society's beliefs about the nature and function of women into literary plots, images, and themes and how these, in turn, influence society's attitudes toward women. Emphasis on socio-historical approaches prevalent in the United States; attention to British political and French psychoanalytic critics. Prerequisite or corequisite: 620:201 or 680:289 or consent of instructor.

## 620:207. The English Curriculum - 3 hrs.

Theories behind teaching of English and trends in curriculum methods and materials, particularly in secondary English. Prerequisite or corequisite: 620:201.

## 620:208. Contemporary Literary Theory - 3 hrs.

Attention to major developments such as semiotics, psychoanalysis, post-structuralism, post-modernism, reception theory, multi-cultural and postcolonial studies, feminism, and gender studies. Prerequisite or corequisite: 620:201.

## 620:220. Medlevai English Literature - 3 hrs .

Examination of how medieval English writers transform the cultural, social, theological, philosophical, and ideological experiences of medieval society into literary language, structures, themes, and genres. Literary texts read in the original Old English or Middle English or in modern English translation. May be offered with a special topic announced in the Schedule of Classes. Prerequisite or corequisite: 620:201.

## 620 English Language and Literature/ 630 TESOL/Applied Linguistics

620:221. English Renaissance Literature - $\mathbf{3} \mathbf{h r s}$.
(1485-1660). Prerequisite or corequisite: 620:201.
620:226. Modem English Literature - 3 hrs.
(1900-1945). Prerequisite or corequisite: 620:201.
620:231. American Romantic Llterature - 3 hrs.
(1800-1870). Prerequisite or corequisite: 620:201.
620:232. American Raalistic and Naturalistic Lherature - 3 hrs.
(1870-1912). Prerequisite or corequisite: 620:201.
620:234. Modern American Literature - 3 hrs.
(1912-1945). Prerequisite or corequisite: 620:201.
620:260. Contemporary Literature - 3 hrs.
Literature from 1945 to present; may include poetry, drama, and/or fiction.
Prerequisite or corequisite: 620:201.
620:264. European Literature - 3 hrs.
Prerequisite or corequisite: 620:201.
620:284. Seminar in Literature - 3 hrs .
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. Prerequisite or corequisite: 620:201.
620:291. Seminar in the Teaching of English - 3 hrs .
Prerequisite or corequisite: 620:201.
620:297. Practicum.
Graduate-level student teaching. Prerequisite: consent of instructor. Prerequisite or corequisite: 620:201.
620:299. Research.
Prerequisite or corequisite: 620:201.

## 630 TESOL/Applied Linguistics

630:125(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 $630: 130$. Prerequisite: junior standing or consent of TESOL major advisor.
630:130(g). The Structure of English - 3 hrs.
Linguistic analyais of phonology, syntax, and semantics in modern American English; study of language development and regional and social variation. No credit if prior credit in 630:125. Prerequisite: junior standing or consent of TESOL major advisor.
630:135. Language in Cuiture - 3 hrs .
Interrelationship of language, culture, and non-verbal communication and the role each of these plays in shaping thought and attitudes. Prerequisite or corequisite: 630:125 or 630:130.
630:143(g). Mistory of the English Language - 3 hrs.
Developmental survey of the English language from its beginnings to present as a product of linguistic change and variation, political history, and social attitude. Prerequisites: 630:125 or 630:130; junior standing.
630:154(g). Phonology - 3 hrs.
Sound systems of human languages, including articulatory and acoustic phonetics, structural phonetics, distinctive features, and generative phonology. Prerequisite: junior standing. Prerequisite or corequisite: 630:125 or 630:130. 630:158(g). Syntax - 3 hrs.
Theories of grammar from a generative-transformational point of view with special emphasis on English syntax. Prerequisite: junior standing. Prerequisite or corequisite: 630:125 or 630:130.

## 630:160(g). Sociolinguistics - 3 hrs.

Study of language and society, including language variation associated with such factors as geography, socioeconomic class, and gender. Prerequisites: 630:125 or $630: 130$; junior standing.
$630: 163(\mathrm{~g})$. Cultural Aspects of Language and Language Teaching - 3 hrs.
Investigation of relationship between language and culture and the interactions among language, social institutions, cultural beliefs, and individual behavior. Applications for teaching English to non-native spenkers. Prerequisites: 630:125 or 630:130; junior standing.
630:165(g). Language Development - 3 hrs .
Study of contemporary theory and research in first and second language acquisition with applications for teaching English to non-native speakers. Prerequisite: junior standing.

630:190(g). Applied English Linguistics for Tenchers - 3 hrs.
Linguistic insights applied to study of language use-writing, reading, spellin and vocabulary; for prospective and current teachers of English. Prerequisioc 630:125 or 630:130; junior standing.
630:192(g). Problems in English Grammar - 3 hrs.
Investigation into grammatical system of English; emphasis on tools and processes used to identify and teach grammatical patterns. Prerequisite: junio standing. Prerequisite or corequisite: 630:125 or 630:130.
630:193(g). TESOL : Methods and Approaches - 3 hrs.
Historical background of Teaching English to Speakers of Other Languages and overview of teaching approaches; teaching the four skills of listening, speakin reading, and writing. Prerequisite: junior standing. Prerequisite or corequisit 630:125 or 630:130.
630:194(g). TESOL II: Pedagogical Strategies -3 hrs .
Lesson planning, materials design and adaptation, materials evaluation, clasel room assessment, and curriculum planning for Teaching Engtish to Speakers of Other Languages. Prerequisite: junior standing. Prerequisite or corequisit 630:125 or 630:130.
630:195(g). Modern Engllsh Grammar and Usage - 3 hrs.
Intensive examination of English grammar, mechanics, and usage; rules of puntuation, spelling, syntax, and usage related to oral and written forms of English discussion of the teaching of grammar. Prerequisite: junior standing.
630:196. Bilingual Education in the Public Schoots - 3 hrs.
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 languag attitudes in policy making. Prerequisite or corequisite: 630:125 or 630:130.
630:198. Independent Study.
630:201. Introduction to Graduate Study in TESOL/Applied Linguistia -3 hrs.
Introduction to sources, tools, and techniques in graduate-level study and research in TESOL and language sciences.
630:240. Computer Assisted Language Learning (CALL) - 3 hrs.
Exploration of purposes, applications and roles of computers in language learning and language testing; application to skills of reading, writing, listening, and speaking. Use of internet resources and tools.
630:254. Seminar in Phonology - 3 hrs.
630:256. Seminar in Syntax - 3 hrs.
630:289. Seminar in Language -3 hrs .
Topic to be announced in Schedule of Classes; may be repeated for credit.
630:292. Second Language Acquisition - 3 hrs.
Historical background and methodology of second language acquisitio research; current theories of acquisition and learning; role of individual and societal variables in language learning.
630:295. Language Testing - 3 hrs.
Examination of basic approsches and techniques for constructing and interpret ing language tests.
630:297. Precticum.
Graduate-level student teaching of English as a second language. Prerequisite consent of instructor.
630:299. Research.

## 640 Religion

## 640:024. Relligions of the World - 3 hrs .

Living religions of humankind with emphasis on their relevance to interpretations of existence, the problem of meaning and vilues, and human destiny.

## 640:030. What is Relligion? -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.
640:040. Relligion, Ethics, and Film - 3 hrs .
Introduction to study of religion through critical examination of a variety of contemporary films. Draws on student visual literacy as approach to the study of religion.
640:113(g). Philosophy of Religion - 3 hrs.
Introduction to philosophical examination of religious ideas. Strongly recommended that some work in philosophy or religion precede this course.
Prerequisite: junior standing. (Same as $650: 113 \mathrm{~g}$.)
640:115(g). Religion and its Critics -3 hrs .
Issues raised by encounter between treditional Christian faith and modern concepts and methods of philosophy, science, history, sociology, and cultural criticism. Examination of positions of both 19th- and 20th-century theologians. Prerequisite: junior standing.

## 640:117(g). Religion in Amerlea - 3 hrs.

Investigation of religious movements and beliefs from colonial times to present. 640:024 or 650:021 recommended to precede this course. Prerequisite: junior standing. (Same as $960: 145 \mathrm{~g}$.)
640:126. 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 prectice and philosophic and psychological studies in the area of mysticism.
640:130. Great Llving Religions: Hinduism and Buddhism - 3 hrs.
Hinduism, Jainism, Buddhism, Islam.
640:132. Great Living Religions: Confucianism, Teoism, and Zen - 3 hrs .
Taoism, Confucianism, Buddhism, Shintoism.
640:134. Great Llving Religions: Judaism and Islam -3 hrs .
Study of the doctrines and practices of Judaism and Islam in their cultural context with attention to historical development and current situation.
640:136. Great Llving Relliglons: Christianity - 3 hrs.
Introductory survey of development, beliefs, practices, and varieties of Christianity.
640:141. Old Testament and Other Hebrew Scriptures - 3 hrs.
Introduction to history and idens of Old Testament and other Hebrew scriptures.
640:142. New Testament and Early Chrlstlan Writings - 3 hrs.
Introduction to history and ideas of New Testament and early Christian writings. 640:152(g). Existentialism - 3 hrs .
Study of interpretations of human experience in contemporary thought. Presupposes no previous knowledge of philosophy. Prerequisite: junior standing. (Same as $650: 152 \mathrm{~g}$.)
640:154(g). Myth and Symbol - 3 hrs.
Investigation of meaning and significance of religious myths and symbols, and theories used to study them. Prerequisite: junior standing.
640:161. Relliglon, Magic and Witchcraft - 3 hrs.
Anthropological understanding of behavior dealing with the supernatural; supernatural beliefs, practices, and movements throughout the world. Prerequisite: 990:011 or consent of instructor. (Same as 990:161.)

## 640:162(g). Women and Christianity - 3 hrs.

Examination of history and function of gender in symbolization of Christian tradition; exploration of institutionalization of sex roles in Christianity; discussion of interaction between the Christian religion and cultural patterns that define the social role, status, and image of women. Interested students are encouraged to contact the instructor. Prerequisite: junior standing.
640:165(g). Religion and Soclety -3 hrs.
Religious institutions and their social context; changes and development in religion; religious organization and behavior; social function of religion. Prerequisite: junior standing.
640:167(g). Rellgion and Auteblography - 3 hrs.
Exploration of idea of literary self-creation as a religious, historical and cultural phenomenon. Attention to questions of race, ethnicity, gender, and class. Prerequisite: junior standing.

640:168(g). Rellgion and Sexuality -3 hrs .
Examination of ways in which religions shape and reflect ideas about the body and sexuality. Prerequisite: junior standing.

## 640:171. Relligion and Ettrics - 3 hrs .

Examination of key issues having to do with religion and ethics, including the moral function of religion, religious pluralism, war and peace, freedom and responsibility, religion and politics, religion and gender, social justice.
640:173. Bio-Medical Ethics - 3 hrs.
Application of principles and analytic methods of ethical theory to contemporary issues in medical practice and research. Topics include fundamental concepts of health and disease, life and death; 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. (Same as 650:173.)

## 640:174(g). Ethics in Business - 3 hrs.

Application of ethical principles and analytic methods to contemporary issues in business. Topics include moral responsibility of corporations and their regulation; economic policy, business practices, and social justice; rights and obligations of employers and employees; meaningful work, motivation, and the worker; affirmative action and reverse discrimination; environment and natural limits of capitalism. Prerequisite: junior standing. (Same as 650:174g.)

## 640:175(g). Environmental Ethics - 3 hrs.

Introduction to and application of ethical theory to environmental issues, including responsibility for plants and animals, pollution, natural resources, and population growth. Prerequisite: junior standing. (Same as 650:175g.)

## 640:186(g). Studies In Rellgion - 3 hrs.

Study of special topics to be indicated in Schedule of Classes. Prerequisite: junior standing.
640:189(g). Individual Readings in Relligion - 1-3 hrs.
Individually arranged readings and reports from (1) Biblical studies, (2) history of religions, or (3) contemporary religious thought. Can be repeated for maximum of 6 hours. Prerequisites: junior standing; consent of deparment head.

## 640:194(g). Seminar on Death and Dying - 3 hrs.

Ideas and research concerning anticipation of dying, toward the goal of sensitive communication with those most affected by death-the suicidal, the terminally ill, and the grieving. Prerequisite: junior standing. (Same as $650: 194$.)

## 640:197. Ethics Practicum - 3 hrs.

Combines service-learning with study of theoretical and applied ethics. Students work 4-6 hours per week in a community agency and meet with instructor. Prerequisites: one completed or concurrent ethics course; consent of instructor. (Same as 650:197.)
640:250. Critical Perspectives on Gender -3 hrs.
Consideration of two traditions that have influenced feminist theories in the last two decades - poststructuralism and psychoanalysis. Readings in primary texts (e.g., Foucault, Derrida, Freud, and Lacan) and explorations of feminist elaborations and critiques of these texts revealing the tenacity, centrality, and power in human lives of a sense of gendered existence. (Same as $650: 250$.)

## 650 Philosophy

650:021. Philosophy: Basic Questions -3 hrs.
Introductory exploration of questions concerning nature of self, reality, meaning, knowledge, truth, faith, value, and cbligation.
650:045. Elementary Logic - 3 hrs.
Methods, principles, and rules of reasoning with emphasis on their practical uses in effective thinking, scientific inquiry, and verbal communication.
650:100(g). History of Philosophy: Ancient - 3 hrs.
History of philosophy from the Pre-Socratics to late antiquity, with emphasis on Plato and Aristotle. Prerequisite: 650:021 strongly recommended; junior standing. 650:101(g). Mistory of Philosophy: Medieval - 3 hrs.
History of philosophy from late Roman times through Middle Ages, with emphasis on Augustine and Thomas Aquinas. Prerequisite: 650:021 strongly recommended; junior standing.
650:103(g). History of Philosophy: Renaissance through Enlightenment -3 hrs.
History of philosophy from Renaissance throuigh Hume, with emphasis on continental rationalism and British empiricism. Prerequisite: 650:021 strongly recommended; junior standing.
650:104(g). History of Philosophy: Modern - 3 hrs.
History of philosophy from Kant to present; emphasis on idealism, romanticism, materialism, positivism, phenomenology, existentialism. Prerequisite: 650:021 strongly recommended; junior standing.

## 650:105(g). Marxism - 3 hrs.

Basic doctrines of Karl Marx and Frederick Engels and others within Marxist tradition. Dialectical and historical materialism; 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.

Introduction to philosophical examination of religious ideas. Strongly recommended that some work in philosophy or religion precede this course. Prerequisite: junior standing. (Same as $\mathbf{6 4 0 : 1 1 3 g}$.)
650:119. Philosophy of Science - 3 hrs.
Philosophical problems of the sciences; nature of laws and theories, causation, explanation and scientific method, and relation between natural and social sciences. 650:142. Ethics - 3 hrs.
Study of major problems of moral conduct, with emphasis on contemporary ethical theories.

## 650:143. Aesthetics - $\mathbf{3}$ hrs.

Problems of experiencing and interpreting the arts presented through readings and discussion of the various arts.
$650: 150(\mathrm{~g})$. Knowledge and Reality - 3 hrs .
Study of variety of knowledge-claims about the world and of the structures of reality implied. Prerequisite: junior standing.
650:152(g). Existentialism - 3 hrs.
Study of interpretations of human experience in contemporary thought. Presupposes no previous knowledge of philosophy. Prerequisite: junior standing. (Same as $640: 152 \mathrm{~g}$.)

## 650:153. The Humen Parson - 3 hrs.

Study of various interpretations of the nature and process of being human.
650:172. Socicty, Politics, and the Person - 3 hrm.
Critical investigation of contexts of engagement and responsibility of persons as members of social institutions and as participants in public discourse on policy and law.
650:173. Blo-Medical Ethics - 3 hrs.
Application of principles and analytic methods of ethical theory to contemporary issues in medical practice and research. Topics include fundamental concepts of health and disease, life and death; 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. (Same as 640:173.)
650:174(g). Ethics in Business - 3 hrs.
Application of ethical principles and analytic methods to contemporary issues in business. Topics include moral responsibility of corporations and their regulation; economic policy, business practices, and social justice; rights and obligntions of employers and employees; meaningful work, motivation, and the worker; affirmative action and reverse discrimination; environment and natural limits of capitalism. Prerequisite: junior standing. (Same as 640:174g.)

## 650:175(g). Environmental Ethics - 3 hrs.

Introduction to and application of ethical theory to environmental issues including responsibility for plants and animals, pollution, natural resources, and population growth. Prerequisite: junior standing, (Same as 640:175g.)
650:186(g). Studies In Phllosophy - 3 hrs.
Study of philosophical thinker or problem to be indicated in Schedule of Classem Prerequisite: junior standing.
650:189(g). Individual Readings in Philosophy - $1-3$ hrs.
Individually arranged readings and reports drawn from (1) history of philosophy, or (2) contemporary philosophical problems. May be repeated for maxd mum of 6 hours. Prerequisites: junior standing; consent of department head.
650:194(g). Seminar on Death and Dying - 3 hrs.
Ideas and research concerning anticipation of dying, toward the goal of sensitive communication with those most affected by death-the suicidal, the terminallyh ill, and the grieving. Prerequisite: junior standing. (Same as $640: 194 \mathrm{~g}$.)
650:197. Ethics Practicum - 3 hrs.
Combines service-learning with study of theoretical and applied ethics. Students work 4-6 hours per week in a community agency and meet with instructor. Prerequisites: one completed or concurrent ethics course; consent of instructor. (Same as 640:197.)

## 650:245. Ethics in Public Policy - 2 hrs.

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.
650:250. Critical Perspectives on Gender - 3 hrs.
Consideration of two traditions that have influenced feminist theories in the last two decedes - poststructuralism and psychoanalysis. Readings in primary texts (e.g., Foucault, Derrida, Freud, and Lacan) and explorations of feminist elaborations and critiques of these texts revealing the tenacity, centrality, and power in human lives of a sense of gendered existence. (Same as 640:250.)

## 680 Humanities

There is no humanities department as such. The courses below are interdisciplinary and are taught jointly by staff from several deparments.
680:010. Leadership: Skllts and Styles -3 hrs.
Basic principles and skills of personal leadership; focus on clarifying values, motivating individuals, organizing groups. Practical applications and use of case studies.
600:021. Humanities I- 4 hrs.
Literature, philosophy, religion, and the fine arts, integrated with the history of Western Civilization (Ancient times through the Reformation).
680:022. Humanities II - 4 hrs .
Continuation of 680:021 (from the 17th century to present).
680:040. Women's Studies: Introduction - 3 his.
Interdisciplinary approach to study of Feminism and aspects of gender-role stereotyping and socialization in institutions, programs, and curricula which prevent fair treatment for all.
630:102(g). Nonverbal Communication - 3 hrs.
Patterns of human expression apart from the spoken or written word. Prerequisite: junior standing. (Same as 48C:121g.)
600:110(g). Leadership: Concepes and Practice - 3 hrs.
Analysis of relationship between leadership theory and practice; focus on development of critical and evaluative akills. Historical and contemporary perspectives on leaders and issues. Prerequisites: 680:010; junior standing.
680:121. Russia/Soviet Union - 3 hrs.
Interdisciplinary examination of the culture, history, geography, economy, political system, and society of Russia and the Soviet Union. Prerequisites: 680:021; 680:022.
680:122. Japan - 3 hrs.
Introductory study of Japan: geographical setting, historical background, cultural heritage, social and political systems, and economic development and importance. Prerequisites: 680:021;680:022.
600:123. Latin Americe - 3 hrs.
Historical, political, social, and cultural elements that form the civilization of Latin America. No credit if student has credit in 780:120. May not be taken for credit on history majors or minors. Prerequisites: 680:021; 680:022.

680:124. China - 3 hrs.
Historical treatment of significant elements of Chinese culture and major aspects of modern China's transformations since the mid-19th century. Prerequisites: 680:021; 680:022.

## 680:125. India - 3 hrs.

Historical treatment of significant elements of Indian culture and major aspects of modern India's transformation under British rule and since independence. Prerequisites: 680:021;680:022.
680:127. Middle East - 3 hrs.
Interdisciplinary examination of significant elements of Middle East culture and society: current patterns, tensions, and contributions. Prerequisites: 680:021; 680:022.
680:128. Africa - 3 hrs.
Interdisciplinary examination of contemporary African society and culture: historical heritage, problems, prospects and importance. Prerequisites: 680:021; 680:022.
680:130. Culture and Philosophy of African American Life - $\mathbf{3}$ hrs.
Interdisciplinary exploration of culture and philosophy of African American Life; emphasis on historical and current aspects of life which enhance or deter progress of African Americans educationally, economically, and politically.
680:131. Practicum in African American Culture - 2 hrs.
Opportunity to work on self-optioned or assigned project; may include work in public school system, volunteer bureaus, and/or community social agencies. May be repeated for maximum of 4 hours. Prerequisite or corequisite: 680:130.
680:132. Native North Amertca - 3 hrs.
Ethnographic survey of socio-cultural systems developed by Native Americans north of Mexico; emphasis on relationships that erist among ecological factors, subsistence techniques, social organizations, and belief systems and impact interactions with European and U.S. societies had on Indian lifestyles. Prerequisites: 680:021; 680:022. (Same as 990:132.)
680:137. Native Central and South America - 3 hrs.
Ethnographic survey of socio-cultural systems developed by foraging and horticultural peoples of South America; emphasis on relationships that exist among ecological factors, subsistence techniques, social organizations, and beliefs systems from holistic, comparative and cross-cultural perspectives. Prerequisites: 680:021; 680:022. (Same as 990:137.)
680:156(g). Topics in Gay/Lesblan/Bisexual Studies - 3 hrs.
Survey of history of homosexuality and bisexuality from ancient Greeks to present; contributions to art, music, drama, and literature by persons who are or are considered to be homosexual/bisexual; and current sociological, political, and religious theories of homosexuality/bisexuality. May be repeated for credit with change in content. Prerequisite: junior standing.
680:160(g). Black Women In America: Chailenge, Spirt, Survival - 3 hrs.
Investigation of major themes in lives of black women in America, utilizing scholarship from sociology, literature, cultural studies, and womanist theology. Challenges to fruitful existence and role of striving for self-representation direct the two major units of course. Prerequisite: junior standing.

## 680:168. Mythology - 3 hrs.

Study of primitive and sophisticated examples of myth and mythopoetic thinking from variety of cultures, emphasis on how myths function in art, society, and the individual.
680:169. Leadership Intemship - 1-3 hrs.
Field placement designed to further develop leadership abilities. Site placement determined in consultation with the Director of Leadership Studies. Prerequisites: 680:010; 680:110; consent of instructor and Director of Leadership Studies.
680:188. 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: 680:010; 680:110; junior standing or consent of instructor.
680:189(g). Seminar in Environmental Problems - $\mathbf{3}$ hrs.
Experience in environmental problem solving of both a theoretical and practical nature. Prerequisites: junior standing; consent of instructor.
680:192. Junior-Senlor 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.
680:198. Independent Study.
(See pages 59, 174.)

680:289. Graduate Seminar In Women's Studies: Gender, Race, and Class - 4 hrs.
Required core seminar for all entering Women's Studies M.A. students. Enhances knowledge of intersections of race, class, and gender. Provides overview of feminist theory and methods. (3 credits fall semester; 1 credit spring semester.)

## 690 Humanities, Interdepartmental

690:030 Arts in the Americas - 3 hrs.
Introduction to cross-cultural understanding of art, dance, film, music, and theatre in the Americas. Emphasis on forms, origins, directions, isolations, and interactions. Inter-departmentally team taught.

## 700 Languages

700:099. Preparation for Study Abroad - 2 hrs.
For students planning to study and travel abroad. Practical, social, geographic, and cultural aspects; some emphasis on contrasting American and foreign cultures. No credit on major or minor in forcign language.
700:181 (g). Translation Theory - 2-3 hrs.
Taught in English. Exploration of, with the help of extant literature, various aspects of translation, such as skills versus 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; consent of instructor.
700:190(g). The Teaching of Foreign Languages $\mathbf{- 2 - 4} \mathbf{~ h r s . ~}$
Foreign language theories, terms, concepts and 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 700:190. Prerequisites: $7 \times 0: 101$; junior standing. Corequisite: $7 \times 0: 191$.
700:192(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. Prerequisites: 7x0:101; junior standing.
700:193(g). Technology in Foreign Language Education - 2-3 hrs.
Based on current research and methodological approaches, enables critical selection, integration, and application of modern technology in foreign language instruction. Prerequisite: junior standing. Prerequisite or corequisite: 700:190; $7 \mathrm{x} 0: 191$; or consent of instructor.
700:195(g). Research Methods in Culture and Literature - 2-3 hrs.
Prepares students in various aspects of cultural and literary criticism, use of critical approaches and latest library resources. Graduate students must take the course during first three resident semesters. Prerequisite: junior standing.
700:198. Independent Study.
700:230. Advanced Literary Transiation - $\mathbf{3}$ hrs.
Preparation of literary translation in English of representative cross-section of literary genres. Extensive discussion of practical and theoretical problems involved. Emphasis on creative aspects. Prerequisite: B.A. in one foreign language.
700:290. Theory and Practice in Forelgn Language Teaching - 1-3 hrs. Synthesis of past and current theories of language acquisition with language teaching practice. May be repeated. Prerequisite: consent of instructor.

## 710 Chinese

710:001. Elementary Chinese I- 5 hrs.
For beginners.
710:002. Elementary Chinesell - 5 hrs.
Continuation of 710:001. Prerequisite: 710:001 or consent of instructor.

### 710.011. Intermediate Chinese I - 5 hrs.

Continuation of $710: 002$. Progressive development of writing, reading, and speaking slails through sequence of exercises relating to daily practical living. Grammatical refinement using numerous illustrations of more difficult new words in dialogues on everyday topics. Prerequisite: 710:002 or consent of instructor.
710:102. Advanced Chinese II - 3 hrs.
Prerequisite: consent of instructor.

## 720 French

720:001. 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.
720:002. Elementary French II - $\mathbf{5}$ hrs.
Continuation of 720:001. Not recommended for students who have had three or more years of French in high school or the equivalent. Prerequisite: 720:001 or equivalent.

## 720:011. Intermediate French - 5 hrs.

Thorough review of patterns of Freach; development of vocabulary and emphasis on speaking and writing. Prerequisite: 720:002 or equivalent.
720:031. Introduction to Francophone Literature in Translation - 3 hrs .
Understanding and appreciating basic forms of French-language literatures in English translation through close reading of literary texts. Does not count for credit on any foreign language major or minor.

## 720:051. Composition - 2-3 hrs.

Continuation of 720:011, leading to free composition. Prerequisite: 720:011 or equivalent. Corequisite: 720:061 or other intermediate course with consent of department head.

## 720:061. Conversation - 2-3 hrs.

Continuation of 720:011, with wider range of subjects, vocabulary, and structures. Prerequisite: 720:011 or equivalent. Corequisite: 720:051 or other intermediate course with consent of department head.
720:100. Teaching French in the Elementary Schools - 1 hr.
Techniques and practice in teaching French; includes weekly training experience in local schools plus class sessions. May be repeated twice for credit. Prerequisite: consent of instructor. (Formerly 720:090.)
720:101(g). Advanced Composition - 3 hrs .
Analysis of major morphological and syntactical structures of the French language, with contrasting grammatical and linguistic approaches to problems of correct usage. Emphasis on successful application of principles. May be repeated once for credit with consent of instructor. Prerequisites: 720:051; junior standing.

## 720:102. French to English Translation - 3 hrs.

Introduction to translation techniques involved in translation of French into English. Topics selected from varied magazines dealing with business, culture, and general information. Prerequisite: 720:051 or consent of instructor.
720:103(g). Advanced Conversation - 3 hrs.
Development and improvement of oral fluency through free and guided conversation. May be repeated once for credit with consent of instructor. Prerequisites: 720:051; 720:061; or consent of instructor; junior standing.
720:104. Introduction to French Lherature - 3 hrs.
Selected major works of representative French authors. Application of language skills to literary analysis and introduction to critical theories. Prerequisite: 720:101 or equivalent.
720:105(g). Stylistics - 3 hrs.
Introduction to stylistic analysis. Development of style in composition through study of excerpts from contemporary French works and literary translation into French. Prerequisite: junior standing. Prerequisite or corequisite: 720:101 or equivalent.
720:107(g). Listening and Comprehension - 3 hrs.
Development and improvement of 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. Prerequisite: junior standing.

## 720:108(g). Introduction to Interpreting - 3 hrs.

Introduction to consecutive and simultaneous translation. May be repeated once for credit. Prerequisites: 720:103 or comparable fluency in French; junior standing.
720:111. Business French - 2-4 hrs.
Introduction to current business concepts and practices in French-speaking countries. Reading and interpreting business information, reading and writing basic business correspondence. Prerequisite: 720:011 or equivalent.
720:114(g). Shert Stories - 3 hrs .
Short stories from Vigny, Merimee, Daudet, Maupassant, Ayme and others. Prerequisites: 720:101; 720:104; junior standing.
720:121(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: 720:101; 720:104; or equivalents; junior standing.

720:122(g). Special Topics in Literature - $\mathbf{3}$ hrs.
Special topics and aspects of the discipline. May be repeated except when topic) is identical. Prerequisites: 720:101; 720:104; or equivalents junior standing.
720:124(g). Contemporary France - 3 hrs .
Survey of recent developments and a description of the country, its people, customs and way of life, institutions, economy, and art. May be repeated once for credit in summer institutes abroad. Prerequisite. junior standing. Prerequisi4 or corequisite: 720:101 or equivalent.
720:125(g). French Culture and Civilization - 3 hrs .
Historical, cultural and sociological background for understanding of contem-1 porary France. May be repeated in summer institutes abroad for 2 hours credity Prerequisites: 720:101 or equivalent; junior standing.
720:126(g). French Summer Sympesium: (Topic) - 2-6 hrs.
Intensive summer course designed to complement courses offered during the faill and spring semesters. Specific topic and number of hours indicated in Schedule of Classes. May be repeated, except where title is identical. Prerequisited 720:101 or equivalent; junior standing.
720:128(g). Literature of Ideas - 3 hrs.
Montaigne, Pascal, La Rochefoucauld, Saint Simon, La Bruyere, Montesquievy Voltaire, Chateaubriand, Rousseau, de Tocqueville and their modern successore. Prerequisites: 720:101; 720:104; junior standing.

## 720:144(g). Novels of the 19th and 20th Centuries - 3 hrs.

Novels from Balzac, Stendhal, Flaubert, Proust, Robbe-Grillet and othere, Prerequisites: 720:101; 720:104; junior standing.

## 720:160(g). Advanced Oral Practice - 2-4 hrs.

Developrnent 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 individual participants. Prerequisite: junior standing. Prerequisite or corequi-4 site: 720:101 or equivalent.

## 720:161 (g). Problems in French Pronunciation - 2 hrs.

Correction of and prectice in producing French sounds, intonation, rhythm, and stress to minimize foreign accent. Prerequisites: 720:051; 720:061; or equivelents; junior standing.
720:181(g). Advanced Business French - 3 hrs.
Study of current business concepts and prectices in French-speaking countries through systematic analysis of business-related topics based on authentic reading materials and business communications. Prerequisites: 720:111 or consent of instructor, junior standing.
720:185(g). Introduction to Transtation -3 hrs .
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. Prerequisites: 720:101 or equivalent; junior standing.

## 720:191. 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. Required for students enrolled in the foreign-language teacher education program. Prerequisite: 720:101. Corequisite: 700:190.
720:201. Advanced Composition and Stytistics - 3 hrs.
Study of stylistic devices; examination of principal morphological, syntactical, and semantic problems.
720:203. Structure of French - 3 hrs .
Phonology, morphology, and syntax of current French, stressing areas of French structure which cause problems for native speakers of English.
720:207. Contemporary French Speech - 2 hrs.
Understanding and identification of major levels of apoken French, including elegant, standard and familiar speech styles; structural, lexical, and phonological study of current French speech, stressing areas of socio-linguistic importance.
720:225. Problems in Translation - 3 hrs.
Techniques of tranulation with joumalistic and technical emphases.
720:226. French Graduate Summer Sympesium: (Topic) - 2-6 hrs.
Intensive summer course designed to complement courses offered during the fall and spring semesters. Specific topic and number of hours in Schedule of Classes. May be repeated, except where title is identical. Prerequisite: 720:101 or equivalent. 720:270. French Literature in Review I-3 hrs.
Chronological review of major periods; works and writers of French literature from the Middle Ages through the Age of Enlightenment. Focus on development of each literary genre. Primarily for students planning to take M.A. comprehensives in French. Prerequisite: graduate standing or consent of instructor.

720:271. French Literature in Review II - 3 hrs.
Chronological review of major periods; works and writers of French literature from 19th Century to present. Focus on development of each literary genre. Prerequisite: graduate standing or consent of instructor.
720:289. Seminar - 3 hrs.
Various topice such as Medieval Literature, 16th Century Literature, 19th Century Prose, Contemporary Novel. Specific area indicated in Schedule of Classes. May be repeated on different topic.

## 730 Japanese

730:001. Elementary Japanese I - 5 hrs. For beginners.
730:002. Elementary Japanese ll - 5 hrs.
Continuation of 730:001. Prerequisite: 730:001 or consent of instructor.
730:011. Intermediate Japanese I - $\mathbf{5}$ hrs.
Continuation of 730:002. 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 words on everyday topics. Prerequisite: 730:002 or consent of instructor.
730:012. Intermediate Japanese ll - $\mathbf{5}$ hrs.
Continuation of 730:011. Prerequisite: 730:011 or consent of instructor.
730:101. Advanced Japanese I- 3 hrs.
Increased use of compounds. Review of more difficult characters. Introduction to Japanese classical literature. Prerequisite: 730:012 or consent of instructor.
730:102. Advanced Japanese II - 3 hrs.
Continuation of 730:101. Prerequisite: 730:101 or consent of instructor.

## 740 German

740:001. Introduction to German Studies I - 3 hrs.
For beginners. Introduction to language and cultures of the German-speaking peoples. Not recommended for students who have had two or more years of German in high school or equivalent. Corequisite: 740:003.
740:002. Introduction to German Studies II - 3 hrs.
Continuation of 740:001. Not recommended for students who have had three or more years of German in high school or equivalent. Prerequisite: 740:001; 740:003; or equivalents. Corequisite: 740:004.

## 740:003. German Communication Practice 1 - 2 hrs.

Practice of basic language skills through guided exercises, including use of lab components. Not recommended for students who have had two or more years of German in high school or equivalent. Corequisite: 740:001. (Formerly part of 740:001.)
740:004. German Communication Practice II - 2 hrs.
Continuation of 740:003. Not recommended for students who have had three or more years of German in high school or equivalent. Prerequisites: 740:001; 740:003; or equivalents. Corequisite: 740:002. (Formerly part of 740:002.)
740:011. Intermediate German Studies I-3 hrs.
Intermediate language course. Continued development of language skills. Review of essential German grammar. Discussion of cultural issues related to German-speaking countries. Prerequisite: 740:002; 740:004; or equivalents.
740:012. German Communication Practice III - 2 hrs.
Practice of language skills at intermediate level, including use of lab components. Prerequisites: 740:002; 740:004; or equivalents.
740:013. Intermediate German Studies II - $\mathbf{3}$ hrs.
Continuation of 740:011 and 740:012. Intermediate language course. Continued development of language skills. Review and expansion of vocabulary and grammatical structures. Discussion of cultural issues related to German-speaking countries. Prerequisites: 740:011; 740:012; or equivalents.
740:014. German Communication Practice IV $\mathbf{- 2}$ hrs.
Continuation of 740:011 and 740:012. Practice of language skills at intermediate level, including use of lab components. Prerequisites: 740:011; 740:012; or equivalents.
740:031. Introduction to German Literature in Translation - $\mathbf{3} \mathbf{h r s}$.
Understanding and appreciating basic terms of German language literatures in English translation through close reading of literary texts.
740:100. Teaching German in the Elementary Schools - 1 hr .
Techniques and practice in teaching German at elementary school level. Students teach German in local schools for approximately one hour per week and meet with course instructor on regular basis. May be repeated twice for credit. Prerequisite: consent of instructor. (Fomerly 740:090.)

740:101(g). German Writing Practice - 2-3 hrs.
Development of writing skills and grammar review. Prerequisites: 740:013; 740:014; junior standing.
740:102(g). Advanced Composition and Grammar Review - $\mathbf{2 - 3} \mathbf{~ h r s . ~}$ Improvement of writing skills through composition, in-class grammar review, and individual tutorial sessions. Prerequisite: junior standing. Prerequisite or corequisite: 740:013; 740:014; or equivalents.

## 740:103(g). German Conversation - $2-3 \mathrm{hrs}$.

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 needs of individual participant. Prerequisites: 740:013;740:014; or equivalents; junior standing.
740:104(g). Introduction to German Literature - 3 hes.
Selected major works of representative German authors. Application of language skills to literary analysis and introduction to critical theories.
Prerequisites: 740:013; 740:014; or equivalents; junior standing.
740:105(g). Stylistics - 3 hrs.
Introduction to stylistics analysis. Development of style in composition through study of excerpts from contemporary German works and literary translations into German. Prerequisites: 740:013; 740:014; or equivalents; junior standing. 740:111. Business German - 3 hrs.
Introduction to current business concepts and practices in German-speaking countries. Reading and interpreting business information, reading and writing basic business correspondence; accessing business news. Prerequisites: 740:011; 740:012; or consent of instructor.
740:116(g). Post World War II Culture and Literature $-\mathbf{3}$ hrs.
Introduction to culture and literature of the two German States, Austria and Switzerland, from 1945 to present: intellectual, artistic, and literary trends. Prerequisite: junior standing. Prerequisite or corequisite: 740:101 or equivalent. 740:121(g). Spacial Topics In Language and Culture - 3 hrs.
Special topics and aspects of the discipline. May be repeated except when topic is identical. Prerequisites: 740:101; 740:104; or equivalents, junior standing.
740:122(g). Special Topics in Literature - 3 hrs.
Special topics and aspects of the discipline. May be repeated except when topic is identical. Prerequisites: 740:101; 740:104; or equivalents; junior standing.
740:123(g). Clvilization of German-Speaking Countries - 3 hrs.
Advanced-level study of geography, history, and culture of German-speaking countries. Prerequisite: junior standing. Prerequisite or corequisite: 740:101 or equivalent.
740:126(g). German Summer Symposium: (Topic) - 2-6 hrs.
Intensive summer course designed to complement courses offered during the fall and spring semesters. Specific topic and number of hours indicated in Schedule of Classes. May be repeated, except where title is identical. Prerequisites: 740:101 or equivalent, junior standing.
740:127(g). Culture and Literature: 1918-1945 - 3 hrs .
Introduction to culture and literature of Germany and Austria between 1918 and 1945: intellectual, artistic, and literary trends. Prerequisite: junior standing. Prerequisite or corequisite: 740:101 or equivalent.
740:128(g). Culture and Literature: Middle Ages to Baroque - 3 hrs.
Introduction to German culture and literature from the beginnings to the 18th century. Highlights of German culture and life as reflected in literary works, mythology, philosophy, religion, and the arts. Prerequisite: junior standing. Prerequisite or corequisite: 740:101 or equivalent.
740:143(g). Culture and Literature: 18th and 19 th Century -3 hrs.
Introduction to German culture and literature from the Enlightenment to end of 19th century; highlights of German culture and life as reflected in literary works, the arts, philosophical texts, and historical documents. Prerequisite: junior standing. Prerequisite or corequisite: 740:101 or equivalent.
740:147(g). Masterpieces of the Modern German Stage - 3 hrs.
Prerequisite: junior standing. Prerequisite or corequisite: 740:101 or equivalent. 740:150(g). Contemporary Germany and Austria - $\mathbf{3}$ hrs.
In-depth analysis of political and social developments and cultural trends of post-war Germany and Austria. Prerequisite: junior standing. Prerequisite or corequisite: 740:101 or equivalent.
740:160(g). History of the German Language - 3 hrs.
Introduction to historical development of German. Prerequisite: junior standing. Prerequisite or corequisite: 740:101 or equivalent.

740:181. Advanced Business German - 3 hrs.
Study of current business concepts and practices in German-speaking countries. In-depth anslysis of business-related communications. Prerequisite: 740:111 or consent of instructor.
740:185(g). Introduction to Translation - 3 hrs.
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. Prerequisites: 740:101 or equivalent; junior standing.
740:191. Bilingual Practicum $\mathbf{- 1 4} \mathbf{~ h r s .}$
Participants meet on regular basis with instructor to acquire first-hand knowledge of foreign language methodologies through activities and class observations. Required for students enrolled in foreign-language teacher education program. Prerequisite: 740:101. Corequisite: 700:190.
740:201. Composition and Styllstics - 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.
740:225. Problems in Translation - 3 hrs.
Techniques of translation with joumalistic and technical emphases.
740:226. German Graduate Summer Symposium: (Topic) - 2-6 hrs.
Intensive summer course designed to complement courses offered during the fall and spring semesters. Specific topic and number of hours indicated in Schedule of Classes. May be repeated, except where title is identical. Prerequisite: 740:101 or equivalent.

## 740:250. 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.
740:289. Seminar - 3 hrs.
Various topics offered such as Baroque Poetry, Classical Drama, Contemporary Prose Fiction, East German Literature. Specific area indicated in Schedule of Classes. May be repeated for credit, except when topic is identical.

## 770 Russian

770:001. Elementary Russian 1-3 hrs.
Basic skills of listening comprehension, reading, speaking and writing, and an introduction to Russian and Soviet culture. Corequisite: 770:003.
770:002. Eiementary Russian II - 3 hrs.
Continuation of 770:001. Prerequisites: 770:001; 770:003; or equivalents. Corequisite: 770:004.
770:003. Elementary Russian Language Practice $1-2$ hrs.
Practice of basic language skills through guided exercises and activities, including use of lab components. Corequisite: 770:001. (Formerly part of 770:001.)
770:004. Eiementary Russlan Language Practice II - 2 hrs.
Continuation of 770:003. Prerequisites: 770:001;770:003. Corequisite: 770:002. (Formerly part of 770:002.)
770:011. Intermediate Russian I- 3 hrs.
Continued development of basic skills with further enlargement of vocabulary. Prerequisites: 770:002; 770:004; or equivalents. Corequisite: 770:013.
770:012. Intermediate Russian II- $\mathbf{3}$ hrs.
Continues grammar study and emphasizes vocabulary building through readings and discussions. Prerequisites: 770:011; 770:013; or equivalents. Corequisite: 770:014.
770:013. Intermediate Russian Language Practice 1-2 hrs.
Practice of Russian to enhance fluency, flexibility, accuracy in all skills, including use of lab components. Prerequisites: 770:002; 770:004. Corequisite: 770:011. (Formerly part of 770:011.)
770:014. Intermediate Russian Language Practice II - $\mathbf{2}$ hrs.
Continuation of 770:013. Prerequisites: 770:011;770:013. Corequisite: 770:012. (Formerly part of 770:012.)
770:031. Introduction to Russian Literature in Translation - $\mathbf{3} \mathbf{~ h r s . ~}$
Understanding and appreciating basic forms of Russian language literature in English translation through close reading of literary texts.
770:091. 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 firstlevel students. May be repeated for maximum of 6 hours. Only 3 hours can be applied to a minor in Russian. Prerequisite: consent of instructor.

770:101(g). Advanced Russian I-3 hrs.
Completes grammar study and emphasizes vocabulary building through read, ings and discussion of expository prose. Prerequisites: 770:012 or equivalen junior standing. (Formerly 770:100g.)
770:102(g). Introduction to Russian Literature I- 3 hrs.
Introduction to history and development of Russian literature from Pushkin to Tolstoy and the critical reaction to it. In English. Prerequisite: junior standiner 770:103(g). Advanced Russian II - 3 hrs.
Continuation of 770:101. Prerequisites: 770:101 or equivalent; junior standing. 770:104(g). Introduction to Russian Literature ll -3 hrs.
Continuation of 770:102. Introduction to literature of the Silver Age, pre- and post-revolutionary periods, and post-Soviet period. In English. Prerequisitet junior standing.
770:109. Teaching Russian in the Elementary School - 1-2 hrs.
Techniques and practice in teaching Russian at elementary school level; weeld teaching experience in local school, plus class sessions. May be repeated twich for credit. Prerequisite: consent of instructor.
770:121(g). Special Topics in Language and Culture - 2-3 hrs.
Special topics and aspects of the discipline. May be repeated except when topid is identical. Prerequisite: junior standing. Prerequisite or corequisite: 770:101. 770:122(g). Special Topics in Literature - $\mathbf{2 - 3} \mathbf{h r s}$.
Special topics and aspects of the discipline. May be repeated except when topic is identical. Prerequisite: junior standing. Prerequisite or corequisite: 770:101. 770:132(g). Nineteenth Century Russian Short Fiction - 3 hrs.
Representative short fiction from Sentimentalism to Realism. Prerequisited, 770:103 or equivalent; junior standing.
770:134(g). Twentieth Century Russian Literature - $\mathbf{3}$ hrs.
Selections from Russian Symbolism, pre- and post-Revolutionary literature to present. Prerequisites: 770:103 or equivalent; junior standing.
770:141(g). Russian Culture and Civilization I-3 hrs.
Lectures and readings in Russian covering time period between the foundation of Kievan Rus and the mid-eighteenth century. Additional readings in English supplemented by class discussions and oral and written reports in Russian. Prerequisites: 770:103; junior standing.
770:142(g). Russian Culture and Civilization II - 3 hrs.
Continuation of $770: 141$. Lectures and readings covering the period from mideighteenth century to present. Prerequisites: 770:103 or equivalent; junior standing.
770:191. Bilingual Practicum - $\mathbf{1 - 3} \mathbf{h r s}$.
Participants meet on regular basis with instructor to acquire first-hand knowedge of foreign language methodologies through activities and class observations. Required for students enrolled in foreign-language teacher education program. Prerequisite: 770:101. Corequisite: 700:190.
770:196. Senior Seminar - 3 hrs.
Various themes/topics offered. Specific topic indicated in Schedule of Classes. Prerequisite: 770:103.

## 780 Spanish

780:001. 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.

## 780:002. Elementary 5panish II - 5 hrs.

Continuation of 780:001. Not recommended for students who have had three or more years of Spanish in high school or the equivalent. Prerequisite: 780:001 or equivalent.
780:011. Intermediate Spanish - $\mathbf{5}$ hrs.
Thorough review of essential Spanish grammar, enlarges vocabulary and augments the skills of listening, reading, writing, speaking, and cultural awareness. Prerequisite: 780:002 or equivalent.
780:025. Spanish for Businass - 3 hrs.
Review of Spanish grammar; specialized vocabulary for commercial activities; augments listening, reading, writing, and speaking skills, and cultural awareness. Prerequisite: 780:011 or equivalent.
780:052. Spanish Language Structure - 2-3 hrs.
Explanation and practice of grammatical structures of Spanish. Prerequisite: 780:011 or equivalent. Corequisite: 780:062 or other intermediate course with consent of department head.
780:053. Spanlsh for Special Purposes - 2-3 hrs.
Review of Spanish grammar; specialized vocabulary for professional activities; augments listening, reading, writing, and speaking akills, and cultural awareness. Prerequisite: 780:011 or equivalent. Corequisite: 780:062.
780:062. Oral and Written Expression - 2-3 hrs.
Development of communication skills, culturally, orally, and in writing through selected readings, discussions, and exercises. Prerequisite: 780:011 or equivalent. Corequisite: 780:052 or other intermediate course with consent of department heed.

## 780:091. Bilingual Pre-Practicum - 1-6 hrs.

For second- and third-level students. Work with first- and second-level classes, reinforcing basic language skills and understanding of Spanish grammar. Microteaching. May be repeated for maximum of 6 hours. Only 3 credits may be applied to major or minor in Spanish. Prerequisite: consent of instructor.
780:100. Teaching Spanish in the Elementary School - 1 hr.
Techniques and practice in teaching Spanish at elementary school level; weekly teaching experience in local school, plus class sessions. May be repeated twice for credit. Prerequisite: consent of instructor. (Formerly 780:090.)
780:101. Advanced Writing - 3 hvs.
Analyis and practice in Spanish grammar and usage through writing and reading a variety of texts with attention to vocabulary enhancement and different communication strategies. Prerequisites: 780:052; 780:062 or equivalent.
780:102(g). Commercial Spanish - 3 hrs.
Vocabulary and format for written correspondence in Spanish with emphasis on commercial vocabulary and idioms. Prerequisites: 780:052 or equivalent; junior standing.
780:103. Advanced Conversation and Reading - 4 hrs.
Further development of oral fluency. Conversation on current issues. Extensive vocabulary enhancement through readings and multimedia materials. Prerequisites: 780:052; 780:062; or equivalents.
780:104. Introduction to Hispanic Litorature - 3 hrs.
Selected major works of representative Hispanic authors. Application of language skills to literary analysis and introduction to critical theories. Recommended for non-teaching majors. Prerequisite: 780:101 or equivalent.
780:105. Literary Minlatures - 2-3 hrs.
Introduction to analysis of short literary forms with application to pedagogy of literature. Recommended for teaching majors. Prerequisites: 780:101 or equivalent. 780:107. Introduction to Translation - 2-3 hrs.
Basic considerations regarding theoretical and applied translation and role of contrastive grammar in translation. Prerequisite: 780:101 or equivalent.
780:112. Survey of Spanish American Literature - 3 hrs.
Overview of Spanish American literature through works of representative authors of different periods and genres. Prerequisite: 780:104 or 780:105 or equivalent.

## 780:118. Survey of Spanish Literature - 3 hrs.

Overview of Spanish literature through works of representative authors of different periods and genres. Prerequisite: 780:104 or 780:105 or equivalent.
780:120. Latin American Culture and Civilization - 3 hrs.
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: 780:101 or equivalent. (Formerly 780:140g.) 780:123. Spanish Culture and Civilization - 3 hrs.
Spanish cultural heritage as shaped by geography and history, and as revealed in its arts, sports, customs, traditions and economic, educational, social and political institutions. Prerequisite: 780:101 or equivalent.
780:125. Modern Mexico - 3 hrs.
Study of geographic, socio-economic, historico-political aspects of contemporary Mexico as reflected in its art, foilkiore, and culture. Offered only in conjunction with the UNI Study Program in Mexico.
780:127. Latinos in the United States - 3 hrs.
Major issues confronting Latinos living in the U.S.: history, immigration, economics, literary and cinematographic representation. Prerequisite: 780:104 or 780:105 or equivalent.
780:131. Topics in Spanish American Llterature - 3 hrs.
Movements, themes and authors in Spanish American narrative, poetry, essay, and drama, based on historical and aesthetic trends. Topic indicated in Schedule of Classes. Prerequisite: 780:112 or 780:118.

## 780:135. Toplcs in Spanish Literature - 3 hrs.

Movements, themes and authors in Spanish narrative, poetry, essay, and drama, based on historical periods and aesthetic trends. Topic indicated in Schedule of Classes. Prerequisite: 780:112 or 780:118.
780:141(g). Media - 3 hrs.
Development of language, cultural and critical akills through Spanish language media (e.g., print, radio, television, film, and computer-based communications). Prerequisites: 780:101 or equivalent; junior standing. (Formerly 780:1218.)
780:143(g). Problems in Spanish Pronunciation - 2 hrs.
Correction of and practice in producing Spanish phonemes to minimize foreign accent. Prerequisites: 780:103 or equivalent; junior standing. (Formerly 780:1618.)
780:145(g). Translation - 3 hrs.
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. Prerequisites: 780:107 or equivalent junior standing. (Formerly 780:185g.)

## 780:146(g). Topics in Language and Culture: - 3 hrs.

Special topics and aspects of the discipline. May be repeated, except when topic is identical. Prerequisites: 780:120 or 780:123 or 780:127 or equivalent, junior standing. (Formerly 780:124g.)
780:147(g). Structural Problems in Spanish - 3 hrs.
Contrastive grammar; syntactic, lexical, and cross-cultural sources of error. Prerequisite or corequisite: 780:101. (Formerly 780:195g.)
780:150(g). Written Communication - $\mathbf{3}$ hes.
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. Prerequisite junior standing.
780:151(g). Advanced Oral Communication - 3 hrs.
Topics of Spanish daily life, emphasis on idioms typical of that linguistic community. Periodic public surveys put knowledge to more formal use. Offered only in conjunction with the Spanish institutes abroad. Prerequisite: junior standing.
780:152(g). Contemporary Hispanic Culture - 3-5 hrs.
Contemporary Hispanic culture as it reflects and relates to its history and prehistory and current environment; emphasis on literature, architecture, painting, sculprure, and folk music. Offered only in conjunction with the Spanish institutes abroad. May be repeated for maximum of 5 hours. Prerequisite: junior standing.
780:162(g). Theatre - 3 hrs.
Peninsular and Latin American theatre from its origin to present. Prerequisites: 780:131 or 780:135; or equivalents; junior standing. (Formerly 780:139g.)
780:163(g). Hispanic Poetry - 3 hrs.
Emphasis on Modernism and Post-Modernism. Prerequisites: 780:131 or 780:135 or equivalent, junior standing. (Formerly 780:144g.)

## 780:164(g). Hispanic Prose: - 3 hrs .

Study of Spanish and/or Latin American prose by period, theme, or author. Topic indicated in Schedule of Classes. May be repeated when title is different. Prerequisites: 780:131 or 780:135 or equivalent junior standing.
780:166(g). Topics in Literature and Culture - $\mathbf{3}$ hrs.
Perspectives on interrelationship of Spanish and/or Spanish American literature and culture, based on historical periods, movements, themes, genres and authors. Topic indicated in Schedule of Classes. Prerequisites: 780:131 or 780:135; senior standing or consent of instructor.
780:184(g). Spanish Summer Symposium: (Topic) - 2-6 hrs.
Intensive summer course designed to complement courses offered during the fall and spring semesters. Specific topic and number of hours indicated in Schedule of Classes. May be repeated, except where title is identical. Prerequisites: 780:101 or equivalent; junior standing. (Formerly 780:126g.)
780:191. Bilingual Practicum - 1-4 hrs.
Participants meet on a regular basis with instructor to acquire first-hand knowledge of foreign language methodologies through activities and class observations. Required for students enrolled in foreign-language teacher education program. Prerequisite: 780:101. Corequisite: 700:190.
780:201. Literature and Critical Theory - 3 hrs.
Application of critical theory to study of literature of Spanish-speaking peoples, literary genres and techniques, using intensive readings, lectures, and student reports. Primarily for students planning to take the M.A. comprehensives in Spanish.
780:221. Hispanic Cultures: - 3 hrs.
Investigation into Hispanic cultures and civilizations as a product of their history and current environment. May be repeated twice when topic is different. (Formerly 780:250.)
780:231. Cervantes - 3 hrs.
Intensive study of Don Quijote.
780:235. Golden Agie Literacure - 3 hrs.
Outstanding literary works of the Renaissance and Baroque eras.
780:240. Analysis of Spanish - 3 hrs.
Study of Spanish syntax from point of view of traditional grammar, with comparisons to findings of applied linguistics. Whenever possible, students will have first-hand experience with linguistic research. (Formerly 780:205.)
780:241. Old Spanish - 2 hrs.
Literary and linguistic study of the Poema de Mio Cid and other selected early works. (Formerly 780:232.)
780:245. Translation Techniques -3 hrs.
Strategies of translation with journalistic and technical emphases. Prerequisite: 780:145 or equivalent translation skills. (Formerly 780:225.)
780:260. Spanish American Lherature - $\mathbf{3}$ hours
Monographic in-depth study of Spanish American literature by movement, genre, author, theme, and its relation to social, economic, political and ideological climate in which the literary discourses are produced. May be repeated when topic is different.
780:261. Spanish Literature - 3 hrs.
Study of Spenish literature by period, theme, and author. May be repeated when topic is different.
780:262. Comparative Hispanic Literatures - 3 hrs.
Comparative analysis of Spanish and Spanish American literature thematically, structurally, and/or stylistically.
780:284. Spenish Graduate Summer Symposium: (Topic) - 2-6 hrs.
Intensive summer course designed to complement courses offered during the fall and spring semesters. Specific topic and number of hours indicated in Schedule of Clasees. May be repeated, except where title is identical. Prerequisite: 780:101 or equivalent. (Formerly 780:226.)
780:289. Seminar - 3 hrs.
Various topics offered in areas of literature, culture, and language. Specific area indicated in Schedule of Classes. May be repeated except when topic is identical.

## 790 Portuguese

790:001. Basic Portuguese Language and Culture - 3 hrs.
Essential language and cultural forms. Corequisite: 790:010.
790:002. Intermediate Portuguese 5tudies - $\mathbf{3}$ hrs.
Communicative skills for routine situations. Prerequisite: 790:001. Corequisite: 790:020.

## 790:010. Portuguese Practice - 2 hrs.

Practice of basic language skills and cultural literacy with live and electronil tutors. Corequisite: 790:001. (Formerly part of 790:001.)

## 790:020. Portuguese Laboratory - 2 hrs.

Establishing situational language skills with live and electronic futor Prerequisites: 790:001; 790:010. Corequisite: 790:002. (Formerly part of 790:002.)
790:031. Introduction to Portuguese and Mispanic Literatures in Translation - $\mathbf{3}$ hrs.
Understanding and appreciating basic forms of Portuguese and Spanish language literatures in English translation through close reading of literary textem May count toward Portuguese minor and dual major.
790:050. Applied Portuguese Communications $\mathbf{- 2 . 3}$ hrs.
Learning authentic forms of speaking, reading and writing. Prerequisite
790:002; 790:020. Corequisite: 790:060 or consent of instructor.

## 790:060. Language and Culture Studio - 2 hrs.

Creative language akills, cultural communications, and clinicals with live and electronic tutors. Prerequisites: 790:002; 790:020. Corequisite: 790:050 or cona sent of instructor.
790:101 (g). Advanced Portuguese Communications - $\mathbf{3}$ hrs.
Sharpen skills in various communications strategies, using authentic materials in writing, reading, speaking and comprehension. May be repeated once with con-1 sent of instructor. Undergraduates earn 3 credits; graduates earn 2 credit/ Prerequisites: 790:050 or equivalent; junior standing.
790:109. Bilingual Experiential Leaming - 1-4 hrs.
For second-level students and higher. Experiential learning by applying lan-1 guage skills in educational and professional settings. May be repeated for maxi-1 mum of 4 hours. Prerequisite: consent of instructor. (Formerly 790:091.)
790:123(g). Multimedia Studies In Culture - 2-3 hrs.
Multimedia study of culture, history, and geography of Portuguese-speakiny world. May be repeated once when topic is different. Prerequisite: junior stand ing. Prerequisite for majors and minors: 790:101 or consent of instructorl Prerequisite for non-majors and non-minors: consent of instructor.
790:180(g). Toples in $\qquad$ - 3 hrs.

Advanced study of various topics in language, cultures and literatures of Portuguese-speaking world. May be repeated except when topic is identical Prerequisites: 790:101 or equivalent; junior standing.
790:191. Bilingual Practicum - $1-4$ hrs.
Participants meet on regular basis with instructor to acquire first-hand knowledge of foreign language methodologies through activities and class observea tions. Required for students enrolled in foreign-language teacher education program. Prerequisite: 790:101. Prerequisite or corequisite: 700:190.

## 800 Mathematics

## TO MEET ANY COURSE PREREQUISITE, A GRADE OF C- OR HIGHER IS REQUIRED IN THE PREREQUISITE COURSE.

## 800:004. Intermediate Algebra - 3 hrs.

Fundamental mathematical concepts; functions and graphs; solutions of equations; systems of equations and inequalities; matrices and determinants. Successful completion will satisfy the university's high school mathematics requirement. Does not count toward minimum hours required for baccalaureate degree.

## 800:023. Mathematics in Decision Making - 3 hrs.

Survey of mathematical ideas of particular use in analyzing information and forming and analyzing hypotheses. Topics include logical statements, probability, statistics, graphs, interest, and matrices.

## 800:030. Mathematics for Elementary Teachers - 3 hrs.

Mathematics as problem solving, communication, connections, and reasoning with regard to tasics 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.
800:037. Technology for Elementery School Mathematics Teachers - 3 hrs. Survey of technologies used to develop mathematical thinking in elementary grades. Technologies addressed include calculators, LOGO, spreadsheets, Geometer's Sketchpad, other educational software and the internet.
800:043. Antlysis 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 800:046.
800:044. Trigonometry - 2 hrs.
Trigonometric functions, solution of triangles and applications of simple harmonic motions, polar coordinates and vectors. No credit for students with credit in 800:046.

## 800:046. Elementary Analysis - 4 hrs.

Pre-calculus mathematics; equations and inequalities; logarithms, exponential and circular functions; analytic trigonometry, analytic geometry, mathematical induction; applications. Credit reduced to one hour for students with credit in 800:043 and to two hours for students with credit in 800:044.
800:048. Condensed Calculus - 4 hrs.
Survey of analytic geometry and elementary calculus with emphasis on applications. May not be applied to Mathematics major or minor.
800:050. 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: $800: 046$, or $800: 043$ and $800: 044$. Students with credit in 800:076 may not receive credit for 800:050.

## 800:060. Caleulus I-4 hrs.

The derivatives and integrals of elementary functions and their applications. Prerequisite: 800:046, or 800:043 and 800:044, or equivalent.
800:061. Calculus II -4 hrs.
Continuation of 800:060. Prerequisite: C - or better in 800:060.
800:062. Calculus III - 4 hrs.
Continuation of 800:061. Prerequisite: $\mathbf{C}$ - or better in $800: 061$.
800:072. Introduction to Statistical Methods -3 hrs.
Descriptive atatistics including correlation and curve fitting. Intuitive treatment of probability and inferential statistics including estimations and hypothesis testing. Students with credit in 800:172 should not enroll in 800:072.

## 800:074. Discrete Mathematics - 3 hrs.

Introduction to mathematical reasoning, sets, relations, and functions with applications in computer science. Prerequisites: $800: 050$ or $800: 060 ; 810: 030$ or equivalent.
800:076. Linear Algebra for Appilcations - 3 hrs.
Gaussian elimination; matrix algebra; vector spaces, kernels, and other subspaces; orthogonal projection; eigenvalues and eigenvectors. Prerequisite: 800:060.
800:080. Mathematics of Finance - 3 hrs.
Study of 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: 800:060.

800:090. Mathematical Problem Solving - 1 hr .
Basic techniques used to solve challenging mathematics problems. Problems considered will come from a broad range of courses. Prepares students to take the William Lowell Putnam Examination and the Iowa Colleginte Mathematics Competition. May be repeated for credit.
800:092. Introduction to Mathematical Modeling - 3 hrs.
Components of mathematical modeling. Formulation, interpretation, and testing of models. Prerequisite: four years of college preparatory mathematics, or 800:046, or 800:043 and 800:044.
800:111(g). Introduction to Algebraic. Thiniding for Elementary Teachers -4hrs.
Investigation of problems involving patterns, variables, relations, functions and their graphs. Exploration and representation of these problems using phyaical models and technology. Prerequisites: 800:030; 800:037; junior standing.
800:112(g). Introduction to Geometry and Measurement for Elementary Teachers - 3 hrs.
Van Hiele levels of thinking. Investigation of two- and three-dimensional concepta, rigid transformations, symmetry, and spatial sense. Prerequisites: 800:030; 800:037; junior standing.

## $800: 113(\mathrm{~g})$. 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. Exploration of topics in the context of the K-8 mathematics curriculum. Prerequisites: 800:030; 800:037; junior standing.

## 800:114(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 knowiedge. Prerequisites: 800:134; at least one of $800: 111,800: 112,800: 113$; junior standing.
800:134. Teaching Mathentics in the Elementary School - 3 hrs.
Effective instructional models and strategies for teaching elementary school mathematics; involves selecting and designing mathematical tasks, creating an environment, and orchestrating discoursc. Using and supplementing mathematics materials within a sound psychological framework for making instructional decisions. Prerequisite: 800:030.
800:137. Action Research for Elementary School Mathematics Teachers $-1 \mathrm{hr}$.
Planning, conducting assessments, providing instruction and evaluating instructional effectiveness for selected mathematics topics in the elementary curriculum. Prerequisite: $800: 134$ or $800: 190$.

## $800: 140(\mathrm{~g})$. 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: 800:062; 800:076; junior standing.

## 800:141(g). Intermediate Mathematical Analysis il -3 hrs.

Riemann integration; sequences and series of functions; introduction to Lebesgue integration. Prerequisites: $800: 140$; junior standing.
800:142(g). Dynamical Systems: Chaos Theory and Fractals - 3 hre.
Historical background, including examples of dynamical systems; orbits, fixed points, and periodic points; one-dimensional and two-dimensional chaos; fractals: Julia sets, the Mandelbrot set, and fractal dimension; computer programs and dynamical systems. Prerequisites: 800:061; 800:076; junior standing.
800:144(g). Elementary Number Theory - 3 hrs.
Topics from properties of integers, prime numbers, congruences, cryptography, Pythagorean triples, Diophantine equations, Fermat's last theorem, Fibonacci numbers, and the golden rectangle. Also, number theoretic connections to abstract algebra. Prerequisites: $800: 160$; junior standing.

## 800:146. Actuarial Examination Preparation - 1-2 hrs.

Strengthening student skills solving computational problems similar to those included on actuarial examinations. Analyzing and precticing appropriate choice of problem solving techniques and strategies. May be repeated for credit for preparation for different examinations.

## 800:149(g). Differential Equations - 3 hrs.

Elementary theory and applications of first order differential equations; introduction to numerical techniques of solving differential equations; solutions of nth order linear differential equations with constant coefficients. Prerequisites: 800:062; 800:076; junior standing.

## 800:150(g). Partial Differential Equations - 3 hrs.

Study of applied partial differential equations using heat, wave, and potential equations as basis; Fourier series and integrals; Laplace transformations. Prerequisites: 800:149; junior standing.

## 800:152(g). Introduction to Probabllity - 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. Prerequisites: 800:061; junior standing.
800:154(g). Introduction to Stochastic Processes - 3 hrs.
Markov chains, Poisson processes, continuous time Markov chains, renewal processes, Brownian motion and stationary processes. Prerequisites: 800:152; junior standing.

## 800:155(g). Differential Geometry -3 hrs.

Analytic study of curves and surfaces in three-dimensional Euclidean space. Prerequisites: 800:062; 800;076; junior standing.

## $800: 156(\mathrm{~g})$. Introduction to Complex Analysis - 3 hrs.

Differentiation and integration of functions of a single complex variable, Taylor and Laurent expansions; conformal mapping. Prerequisites: 800:062; junior standing.
800:157(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. Prerequisite: $800: 152$ or consent of instructor, junior standing.

## 800:158(g). Toplcs in Actuarial Science - 3 hrs.

Topics from mathematics of life contingencies, risk theory, survival analysis, construction of actuarial tables, demography, graduation. May be repeated on different topic with consent of instructor. Prerequisites: 800:152; junior standing, consent of instructor.
800:160(g). Modem Algebra I- 3 hrs.
Introduction to study of algebraic systems. Groups, rings, fields, homomorphisms and isomorphisms. Prerequisites: 800:061 or equivalent; 800:076; junior standing.

## 800:161(g). Linear Algebra I- 3 hrs.

Vector spaces, linear transformations, determinants, eigenvalues and eigenvectors, canonical forms, inner product spaces. Prerequisites: 800:160; junior standing.
800:162(g). Modem Algebra II - 3 hrs.
Continuation of 800:160. Groups with operators, modules over rings, Sylow theorems, composition series, semi-simple and simple rings, field theory and introduction to Galois theory. Prerequisites: $800: 160$; junior standing.
800:165(g). Introduction to Modern Geometry - 3 hrs.
Historical survey of Euclidean geometry and examination of its modern formulation; introduction to transformational geometry; elements of hyperbolic nonEuclidean geometry and its models in the Euclidean plane and space. Prerequisites: 800:060 or equivalent; junior standing.
800:167(g). Topology I - 3 hrs.
Introductory study of metric spaces, completeness, topological spaces, continuous functions, compactness, connectedness, separability, product and quotient spaces. Prerequisites: 800:062; 800:076; junior standing.

## 800:168(g). Topology II - 3 hrs.

Continuation of $800: 167$. Two- and $n$-dimensional manifolds, orientable manifolds, the fundamental group of a space, free groups, covering spaces, application to geometry and knot theory. Prerequisites: 800:160; 800:167; junior standing.
800:169(g). Mathematical Logk - 3 hrs.
Introduction to semantics and syntax of propositional and predicate calculus; applications to electrical networks and analysis of formal mathematical theories. Prerequisites: 800:060; junior standing.
800:171(g). Spatial Data Analysis - 3 hrs .
Analysis and interpretation of spatial point processes, area, geostatistical and spatial interaction data. Applications to geographic data in real estate, biology, environmental and agricultural sciences using S-Plus software. Prerequisites: 800:072 or 980:080; junior standing. (Same as 970:160g.)

800:172(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 pack, ages such as SAS or SPSS. Students with credit in 800:072 or 800:174 may not enroll in $800: 172$. Prerequisite: junior standing.
800:173. Probability and Statistics -3 hrs.
Descriptive statistics and graphical representations, basic concepts of probability and distributions, random variables, expectations, sampling theory, tests of statistical significance. Calculus is employed in developing and applying these ideas. Specific attention devoted to the use of technology in motivating and explaining concepts and techniques. Emphasis on applications appropriate for secondary school probability/statistics courses. No credit with credit in 800:172. Prerequisite: 800:061.
$\mathbf{8 0 0 : 1 7 4 ( g ) . ~ I n t r o d u c t i o n ~ t o ~ M a t h e m a t i c a l ~ S t a t i s t i c s ~ - ~} 3$ hrs.
Sampling distribution theory, point and interval estimation, Bayesian estimation, statistical hypotheses including likelihood ratio tests and chi-square tests, selected nonparametric methods. Prerequisites: 800:062; 800:152; junior standing.

## 800:175(g). Regression Analysis - 3 hrs.

Regression analysis, analysis of variance, time series methods. Prerequisitest 800:174; junior standing.

## $800: 176(\mathrm{~g})$. Numerical Analysis I - 3 hrs.

Theory and application of standard numerical techniques dealing with nonlinear equations, systems of linear equations, interpolation and approximation, numerical differentiation and integration. Prerequisites: 800:061; 800:076; 810:031, 810:032, 810:034, or 810:035, or equivalent; junior standing.
$\mathbf{8 0 0 : 1 7 7}(\mathrm{g})$. Linear and Non-Linear Programming - 3 hrs.
Linear, non-linear, integer, and dynamic programming. Prerequisites: 800:061; $\mathbf{8 0 0 : 0 5 0}$ or $800: 076 ; 810: 031,810: 032,810: 034$, or $810: 035$ or equivalent, junior standing.
$\mathbf{8 0 0 : 1 7 8 ( g ) . ~ N u m e r i c a l ~ A n a l y s i s ~} 11-3$ hrs.
Theory and application of numerical techniques for solution of ordinary and partial differential equations. Advanced topics from interpolation, approximation, numerical linear algebra. Prerequisites: 800:176; junior standing.
800:180(g). History of Mathematics: To the Calculus - $\mathbf{3}$ hrs.
Survey of mathematical activities of mankind to the advent of the calculus in the 17th century. Motives, infuences, and methods affecting development of algebra, geometry, and number theory in Mesopotamian, Egyptian, Greek, Islamic, and eastern civilizations. Prerequisite: junior standing.
$\mathbf{8 0 0 : 1 8 1 ( g ) . ~ P h i l o s o p h y ~ o f ~ M a t h e m a t i c s ~ - ~} 3$ hrs.
Consideration of views on foundations of mathematics and such topics as role and possible limitations of mathematics in scientific investigation; significance of logical constructs in mathematics. Prerequisites: Humanities course; one semester of calculus; at least one additional mathematics course; junior standing. 800:182(g). Introduction to Set Theory - $\mathbf{3}$ hrs.
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. Prerequisites: $800: 160$ or $800: 165$ or 800:169; junior standing.

## 800:184(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 800:184 and 810:181. Prerequisites: 800:061; at least one 100 -level mathematics course; junior standing.
800:185(g). History of Mathematics: From the Calculus to the 21 st

## Century - 3 hrs.

Survey of mathematical activities of mankind from development of calculus in the 17th century. Rise of analysis, and development of modern algebra, nonEuclidean geometries, and general axiomatic method in the 19th century. Set theory, topology, mathematical logic, and other integrating developments in 20th century mathematics. Prerequisites: 800:061; junior standing.

800:187(g). Formal Languages - 3 hrs.
Brief comparison of natural languages and formal languages. 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 800:187 and 810:182. Prerequisites: $800: 184$ or $810: 181$; junior standing. (Same as $810: 182 \mathrm{~g}$.)
800:188. The Teaching of Middle School/Junior High Mathematics - $\mathbf{3}$ hrs.
Teaching strategies for grades 5-8; roles of content and methods; participation in a middle school/junior high teaching situation. Prerequisites: 200:128; 200:148; 6 hours of 100 -level courses in Mathematics.
800:189(g). Geometric Transformations - 3 hrs.
Isometries and similarity transformations in the Euclidean plane and Euclidean space; preservation properties of isometries; existence and classification of isometries in the Euclidean plane; applications to concepts and problems in geometry, physics, and modern algebra, and to analysis of congruence and similarity. Prerequisites: $800: 076 ; 800: 165$; junior standing.

## 800:190. The Teaching of Secondary Mathematics - $\mathbf{3}$ hrs.

Teaching strategies for grades 7-12; roles of content and methods; participation in a secondary teaching situation. Prerequisites: 200:128; 200:148; 250:150; $800: 160 ; 800: 165 ; 800: 188$.

## 800:191(g). Contemporary Mathematics Curricula - 1-2 hrs.

Study and evaluation of innovative curriculum materials. Focus on early elementary, middle grades, or high school curriculum. May be repeated for a different curriculum level with consent of department. Prerequisites: 800:134 or 800:188 or 800:190; junior standing.
800:192. Mathematics for Elementary Students with Special Noeds - 1 hr. Assessing, designing, and providing appropriate mathematical tasks for students with special needs. Prerequisite: 800:134 or $800: 190$.
800:193(g). Linear Algebra ll - 3 hrs.
Inner product spaces, Gram-Schmidt orthonormalization, unitary operators and their matrices, bilinear forms, Hermitian forms, normed linear vector spaces. Prerequisites: 800:161; junior standing.

## 800:194. Senior Mathematics Seminar - 1 hr.

Researching and writing a paper exploring specific theme, topic, or problem in mathematics, culminating with oral presentation to the class. Prerequisite: senior mathematics major.
800:195. Undergraduate Research in Mathematics - 3 hrs.
Research on selected topic in mathematics with faculty supervision. Presentation of written paper at departmental seminar. Prerequisite: completion of the major core with minimum GPA of 3.00 .

## 800:196(g). Applled Multivariate Statistical Analysis - 3 hrs.

Multivariate normal distribution, tests of significance with multivariate data, discrimination and classification, clustering, principal components, canonical correlations, use of statistical computer packages. Prerequisites: 800:076; 800:174; junior standing.
800:198. Independent Study.
800:201. Mathematical Analysis I - 3 hrs.
The real numbers; topology of Cartesian spaces; continuous functions; differentiation in Cartesian spaces. Prerequisite: 800:140 or consent of instructor.
800:202. Mathematical Analysis II -3 hrs.
Riemann-Stieltjes and Lebeague integrals; integration in Cartesian spaces; improper and infinite integrals; infinite series. Prerequisite: 800:201.

## 800:203. Complex Analysis I- 3 hrs.

Analyticity; differentiation and integration of functions of one complex variable; power series, Laurent series; calculus of residues. Prerequisites: 800:140; 800:156; or consent of instructor.
800:204. Complex Analysis II-3 hrs.
Analytic continuation; harmonic functions; entire functions; conformal mapping; selected applications. Prerequisite: 800:203.

## 800:210. Theory of Numbers - 3 hrs.

Mathematical study of integers: induction, divisibility, prime numbers, congruences, quadratic reciprocity, multiplicative functions.
800:211. Teaching Agebra in the Middle Grades - 2 hrs.
Examination of literature and students' thinking related to algebraic concepts. Curriculum issues, teaching strategies, and implications of technology. Prerequisite: 800:215 or consent of department.
800:213. Selected Topics in Mathematics for the Middle Grades $\mathbf{- 2} \mathbf{h r s}$. Investigation of mathematical topic(e), such as geometry, data analysis, probs-
bility, or number sense. Examination of a major mathematical idea including implications of research literature, and examination of relevant curriculum materials. May be repeated once on a different topic with consent of department. Prerequisite: consent of deparment.
800:214. Mathematical Problem Solving in the Middle Grades - 1 hr . Solving problems from a variety of mathematical topics such as linear programming, geometry, and probability. Analyzing problem-solving techniques and teaching strategies. Investigating issues related to implementing a problem-solving approach in the classroom.
800:215. Teaching Rational Numbers - 2 hrs.
Examination of literature, problems, and issues related to teaching fractions, decimals, ratios, proportion, and percent in grades 4-8. Exploration of innovative strategies for developing concepts, skills, and proportional reasoning. Implications of research and reform recommendations for the curriculum.
800:220. New Developments in Middle Grades Mathematics - 3 hrs.
Investigation of current recommendations for goals, content, instructional strategies, and curriculum of mathematics programs in grades 4-8. In-depth examination of selected content and implementation of a problem-solving approach to instruction. Focus on application to classroom practice and planning for change for a selected topic.
800:221. Mathematics Literacy in an Information Age $\mathbf{- 2}$ hrs.
Examination of applications and contributions of mathematics to other disciplines, the workplace, personal lives, and society. Investigation of shifting conceptions of mathematics and mathematics literacy in today's world. Diverse uses of mathematics illustrated. Prerequisites: 800:220; 800:236; 800:238.
800:222. Issues and Problems in Teaching Mathematics in the Middle
Grades - 2 hrs.
Issues and problems related to current reform in mathematics, including planning curriculum, assessing student learning, managing instruction, and providing for individual needs. Examination of related literature. Prerequisite: 800:220.
800:236. Mathematics for the Middle Grades Teachers $1-3$ hrs.
Integrated, historical, cultural study of development and structure of quantity, data, and chance. Focus on mathematical ways of knowing and verification.
800:237. Technology in Middle Grades Mathematics - 2 hrs.
Uses of technology in teaching and learning mathematics. Examination of research related to incorporating technology in the teaching of mathematics.
800:238. Mathematics for the Middle Grades Teacher II - $\mathbf{3}$ hrs.
Integrated, historical, cultural study of development and structure of patterns, functions, relationships, and shapes. Focus on ways of knowing and verification. Prerequisite: 800:236.

## 800:240. Theory of Rings and Modules - 3 hrs.

Ring theory from factorization in commutative rings, rings of quotients, localization, rings of polynomials and formal power series, and elements of Galois theory. Module theory from exact sequences, free modules, projective and injective modules, tensor products, modules over principal ideal domains, and algebras. Prerequisite: 800:162 or consent of instructor.
800:245. Topics in Algebra - 3 hrs.
Topics from groups, noncommutative rings and algebras, introduction to homological algebra, introduction to Lie algebras, and linear algebras. Prerequisite: 800:162 or consent of instructor.
800:246. Topics in the History of Mathematics - 3 hrs.
Topics from 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. Prerequisite: 800:180 or 800:185.
800:263. Topics in Mathematical Logic and Set Theory -3 hrs.
Topics from: the predicate calculus and first-order mathematical theories; the Godel completeness and incompleteness theorems; algebraic and many-valued logic; Boolean algebras, lattices, representation theorems, and models in set theory and mathematical logic; independence of the axioms of set theory (including the axiom of choice and the continuum hypothesis). Prerequisite: $800: 169$ or $800: 182$, depending on the topic.
800:265. Geometric Symmetry - 3 hrs.
Symmetry groups in the Euclidean plane and the geometric significance of normality. Finite and discrete symmerry groups in the plane: the rosette, frieze, and wallpaper groups. Applications to analysis of Escher-type designs and omamental designs of Alhambra. Finite symmetry groups in Euclidean space. Prerequisites: 800:160; 800:189.

800:266. Toplcs in Geometry - 3 hrs.
Topics from: geometric convexity, non-Euclidean geometries, the BanachTarski paradox, inversions and mappings of the Euclidean sphere, geometric inequalities, the history of geometry, differential manifolds. May be repeated on different topic with consent of instructor. Prerequisite: consent of instructor.
800:273. Topics in Probability and Statistics - $\mathbf{3}$ hrs.
Topice chosen from correlation and regression analysis, analysis of variance and co-variance, non-parametric methods, order statistics. Prerequisite: consent of instructor.
800:291. Problems and Issues in Teaching High School Mathematics - 3 hrs.
Course content decided by participants and instructor. Consideration of both mathematics content and methodology of the senior high school. Prerequisite: consent of department.
800:293. The Secondary School Mathematics Curriculum - 3 hrs.
Comparison of current secondary curriculum with national standards, implementation, assessment, and the role of technology.
800:299. Research.

## 810 Computer Science

## 810:021. Computing Skills and Concepts - 3 hrs.

Introduction to operation, applications, and implications of computers. Introduction to microcomputers and network communications. Develops skill in current applications and sensitizes students to societal issues related to computing 810:022. Microcomputer Applications and Systoms Integration - $\mathbf{3}$ hrs. Emphasis on developing macros and programs, importing and exporting files between applications, solving and implementing applications and problems, and other more advanced topics. Examination of software such as word processing, spreadsheets, and database languages. Prerequisite: 810:021 or equivalent.
810:023. Microcomputer Systems - $\mathbf{3}$ hrs.
Functional description of microcomputer operating systems; commands and utilities, system and file organization, memory and file management, troubleshooting strategies, and networks. Prerequisite: 810:022 or any one-semester programming course.
810:030. Visual BASIC Programming - $\mathbf{3}$ hrs.
Programming using the language Visual BASIC. Broad coverage of language syntax, programming practice, and programming problems appropriate to the novice or end-use programmer using a personal computer.

## 810:031. FORTRAN Programming - 3 hrs .

Programming using the language FORTRAN. Broad coverage of language syntax, programming practice, and programming problems appropriate for mathematical and numerical control programmer using personal or mainframe computers.

## 810:032. Pascal Programming - 3 hrs.

Programming using the language Pascal. Broad coverage of language syntax, programming practice, and programming problems appropriate for general programming instruction and understanding of computer operation.
810:034. COBOL - 3 hrs.
Examination of basic features of COBOL; emphasis on data processing techniques and structured programming methods. Sequential and indexed file structures, file maintenance, sorting, information retrieval, and design of reports. Concepts illustrated by business-type examples. No credit for students earning credit in 150:034. Prerequisite: one of the following - 150:032, 810:030, 810:032, 810:035, 810:036, or 810:051.

## 810:035. CProgramming - 3 hrs.

Programming using the language $C$. Broad coverage of language syntax, programming practice, and programming problems appropriate for the systems and technical programmer.
810:036. Ct+ Programming - 3 hrs.
Programming using the language $\mathrm{C}++$ and object-oriented paradigm. Broad coverage of language syntax and programming practice. Appropriate for transferring majors needing $\mathrm{C}++$ and for developers of general computing applications and systems.

## 810:041. Computer Organization - 3 hrs.

Introduction to basic computer structures and assembly language programming. Machine-level representation of character and numeric data; assembly-level machine organization; addressing methods and program sequencings instruction sets and their implementations. Prerequisite or corequisite: 810:052.

810:051. Introduction to Computing - 4 hrs .
Introduction to algorithmic problem solving in context of modern object-orient ed programming language. Problem-solving strategies and basic data structuree: introduction to data and procedural abstraction; significant emphasis on program design and style. Intended for majors. Discussion, 3 periods; lab, 2 periods.
810:052. Data Structures - 4 hrs.
Introduction to data and file structures. Abstract data types including stacke, queues, trees, tables, lists, strings, arrays, and files; implementation of these structures and basic algorithms for manipulating them. Discussion, 3 periodey lab, 2 periods. Prerequisites: 810:051;810:080.
810:053. Object Oriented Programming - 3 hrs.
Intermediate programming in an object-oriented environment. Principal pro-1 gramming language is a modern object-oriented language. Topics includes object-oriented paradigm, object-oriented design and analysis, software reuse, frameworks, patterns, limitations, concurrency, and case studies of object-oris, ented applications. Prerequisite: 810:052.
810:080. Discrete Structures - 3 hrs.
Topics include propositional and first-order logic; proofs and inference; mathematical induction; sets, relations, and functions; and graphs, lattices, and Boolean algebra, all in the context of computer science. Prerequisite or corequisite: 810:051.
810:088. Topies in Computing - $\mathbf{3}$ hrs.
Topics chosen from recent developments in computing appropriate to students with limited computer science background. Topic will often relate to relatively sophisticated or technical use of computing or recent developments in programming. May be repeated for credit on a different topic. Prerequisite: consent of instructor.
810:114(g). Database Systems - 3 hrs.
Storage of, and access to, physical databases; data models, query languages, transaction processing, recovery techniques; object-oriented and distributed database systems; database design. Prerequisites: 810:052; 810:171; junior standing.
810:115(g). Information Storage and Retrieval - $\mathbf{3} \mathbf{h r s}$.
Natural language processing; analysis of textual material by statistical, syntactic, and logical methods; retrieval systems models, dictionary construction, query processing, file structures, content analysis; automatic retrieval systems and question-answering systems; evaluation of retrieval effectiveness. Prerequisites: 810:052; junior standing.
810:142. Computer Architecture - 3 hrs .
Basic concepts of computer architecture with special focus on principles underlying contemporary uniprocessor design. Interaction of hardware and software, and consideration of efficient use of hardware to achieve high performance. Topics include: instruction set design, processor design, pipelining, the memory hierarchy, design trade-offs, I/O systems, performance measurement, and multiprocessors. Prerequisites: 810:041; 810:053.
810:143(g). Operating Systems - 3 hrs.
History and evolution of operating systems; process and processor management; primary and auxiliary storage management; performance evaluation, security, and distributed systems issues; case studies of modern operating systems. Prerequisites: 810:142; junior standing.
810:144. Computer Systems Concepts - 3 hrs.
Systematic view of computer systems, both hardware and software; emphasis on understanding and use of command and utilities. Fundamental system concepts and internals, networks and distributed systems, library software, and user environments or work benches. Examination of command and job control languages. Prerequisite: 810:041.
$810: 146(\mathrm{~g})$. Distributed Computing - 3 hrs.
Introduction to computer communication networks and distributed computing. Topics include broadcast networks, point-to-point networks, network design, routing and flow control, network protocols and services, the client-server model, the object-based model, remote procedure call, distributed operating systems and their services, naming, security, clocks, synctronization and mutual exclusion protocols, algorithms, deadlocks, distributed file systems, fault-tolerance issues, and case studies. Prerequisites: 810:143; junior standing.

810:153. Design and Analysis of Algorithms - 3 hrs .
Algorithm design techniques such as dynamic programming and greedy algorithms; complexity analysis of algorithms; efficient algorithms for classical problems; intractable problems and techniques for addressing them; algorithms for parallel machines. Prerequisite: 810:041.
810:154. Programming Languages and Paradigms - 3 hrs.
Organization of programming languages; language design issues including syntax, data types, sequence control, and storage management; comparison of language features from object-oriented, imperative, functional, and logical paradigms. Prerequisite: 810:053.

## $\mathbf{8 1 0 : 1 5 5 ( g )}$. Translation of Programming Languages - 3 hrs.

Introduction to analysis of programming languages and construction of translators. Prerequisites: 810:154; junior standing.

## 810:161 (g). Artificial Intelligence $-3-4 \mathrm{hrs}$.

Models of intelligent behavior and problem solving; knowledge representation and search methods; learning; topics such as knowledge-based systems, language understanding, and vision; optional 1 -credit lab in symbolic programming techniques: heuristic programming; symbolic representations and algorithms; applications to search, parsing, and high-level problem-solving tasks. Prerequisite: for lecture, junior standing; for lab, 810:153 or 810:154.
810:162(g). Intelligent Systems - 3 hrs.
Design and implementation of programs that apply artificial intelligence techniques to problems such as design, diagnosis, and distributed problem solving. Emphasis on team design and development of large systems. Prerequisites: 810:161; junior standing.
810:171. Software Systems - 3 hrs.
Discussion of software systems from functional viewpoint; database systems, user interfaces, computer graphics, and intelligent system applications; associated software engineering concepts; social and professional issues. Prerequisites: 810:052; junior standing.

## 810:172(g). Software Engineering - 3 hrs.

Study of software life cycle models and their phases-planning, requirements, specifications, design, implementation, testing, and maintenance; emphasis on tools, documentation, and applications. Prerequisites: 810:171; junior standing. 810:173(g). Project Management - 3 hrs.
Examination of problems of organizing, controlling, managing, and evaluating a software project; software metrics and human input. Prerequisites: 810:172; junior standing.

## 810:179. Cooperative Education - 1-4 hrs.

Application of classroom learning to field experience. Credit may not be applied to major or minor. Offered on credit/no credit basis only.
810:180. Undergraduate Research in Computer Sclence - 1-3 hrs. $810: 181$ (g). Theory of Computation - 3 hrs.
Topics include regular languages and grammars; finite state automata; contextfree languages and grammars; language recognition and parsing; Turing computability and undecidability. Prerequisites: 800:074 or 810:080; junior standing. 810:182(g). Formal Languages - 3 hrs.
Brief comparison of natural languages and formal languages; 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 $800: 187$ and $810: 182$. Prerequisites: $800: 184$ or $810: 181$; junior standing. (Same as $800: 187 \mathrm{~g}$.)
$\mathbf{8 1 0 : 1 8 8 ( g ) . ~ T o p i c s ~ i n ~ C o m p u t e r ~ S c i e n c e ~ - ~} \mathbf{3}$ hrs.
Topics of general interest from any area of computer science, including systems, software, or theory. Prerequisite: junior standing.
810:189. Seminar in Computer Science - 1-3 hrs.
Exploration of current topics in Computer Science. Analysis and oral presentation of technical materials in the area. Requires a research paper on a specific issue. Maximum of 3 hours may be applied toward graduation. Prerequisite: junior standing.
810:214. Database Management Systems - 3 hrs.
Database system concepts, physical data organization, the network model and the DBTG Proposal, the hierarchical model, the relational model, relational query languages, design theory of relational databases, query optimization, normalization.

810:215. Problems in Information Storage and Retrieval - $\mathbf{3} \mathbf{~ h r s . ~}$
Study of current research in advanced natural language processing; analysis of natural language text by statistical, syntactic, and logical methods; retrieval systems models, dictionary construction, query processing, file structures, content analysis; automatic retrieval systems and question-answering systems; evaluation of retrieval effectiveness.

## 810:240. Computer Systems - 3 hrs .

Survey of issues in computer system analysis and design. Topics include singleprocessor, multi-processor, and networked architectures. Emphasis on relationship between system hardware and software. Prerequisite: graduate standing in Computer Science.
810:241. Distributed Systems - 3 hrs.
Overview of basic concepts of distributed systems. Topics may include: distributed machine architecture, distributed programming, distributed file systems, fault tolerance, security issues, load balancing, process migration, and distributed performance measurement. Prerequisite: 110:143.
810:242. System Performance Analysis - $\mathbf{3}$ hrs.
Survey of analytical modeling techniques for performance evaluation and measurement; analytical and simulation models of computer systems; system selection and tuning strategies. Prerequisites: 800:152; 810:143.
810:250. Applying Education Theory to Computer Science Teaching - 1 hr.
Application of learning and pedagogical theory and principle to teaching of computing. May be repeated for maximum of 3 hours. Corequisite: 200:214 or 240:240 or 250:205.
810:251. Computers, Computer Science, and Education - $\mathbf{3}$ hrs.
Survey of history and applications of computers, the field of computer science, and use of computers in education. Prerequisite: consent of department.
810:253. Problems in Teaching Computer Sclence - $\mathbf{3}$ hrs.
Examination and application of research to solution of problems relating to curriculum development, pedagogy, and management of computer science education; public presentation of course project. Prerequisites or corequisites: 200:214; 240:240; 250:205; 810:250; 810:251.

## 810:255. Computer Science Instructional Software - 3 hrs .

Seminar providing opportunity for examination of instructional design principles, practice, and research and their application to development of instructional applications for computer science; public presentation of course project. Prerequisite: 810:251.

## 810:261. Problems in Artificial Intelligence - $\mathbf{3}$ hrs.

Topics include: philosophy of AI, knowledge representation, search, natural language, speech understanding, vision, planning, learning and learning techniques, knowledge-based systems and system organization and system-building techniques. Prerequisite: 810:161.

## 810:262. Machine Learning - 3 hrs.

Survey of computational approaches to learning. Topics include: inductive learning, explanation-based learning, case-based learning, analytical learning, comparison and evaluation of learning algorithms, cognitive modeling and relevant psychological results. Prerequisite: 810:161.
810:270. Algorithms - 3 hrs.
Survey of analysis and design of algorithms. Topics include algorithm design techniques, efficient algorithms for classical problems, and intractable problems and techniques for solving them. Prerequisite: graduate standing in Computer Science.
810:280. Theoretical Foundations of Computing $-\mathbf{3} \mathbf{h r s}$.
Survey of theoretical models of computation and basic theory of computability. Topics include Turing machines, undecidability, NP-completeness, and computational complexity. Consideration of applications of theory to contemporary problems in computing. Prerequisite: graduate standing in Computer Science.

## 810:281. Combinatorial Algorithms - 3 hrs.

Overview of combinatorial algorithms. Topics include: advanced data structures, graph algorithms, arithmetic algorithms, parallel algorithms, string problems. NP-complete problems and provably intractable problems. Prerequisites: 810:153; 810:181.

## 820 Science and Science Education

820:031. Activity-Based Physical Science - 4 hrs.

Activity-based introduction to concepts and processes drawn from chemistry, earth science, and physics using an inquiry approach for those considering elementary education major. Lecture/discussion, 2 periods; lab, 2 periods; plus 1 hour arranged. For elementary education majors only. Prerequisite: student must have satisfied University entrance requirements in English and Mathematics
820:032. Activity-Based Life Science - 4 hrs.
Activity-based approach to studying the living world for those considering an elementary education major. Focuses on the diversity of life and ecosystems utilizing inquiry-oriented teaching. Lecture/discussion, 2 periods; lab, 2 periods plus 1 hour arranged. For elementary education majors only. Prerequisite: student must have satisfied University entrance requirements in English and Mathematics.

## 820:113(g). Techniques for Science Teachers - 1-3 hrs.

Spectrum of options to help science teachers improve their teaching. Topics may include teaching strategies, laboratory techniques or learning psychologies that apply to teaching various science disciplines and age levels. Topic indicated in Schedule of Classes. Application to major requires advisor approval. Prerequisite: junior standing; consent of instructor.

## 820:130(g). Experiences in Elementary School Science - 2 hrs.

Development of understanding science as an investigative process and how this relates to elementary science teaching. Seminar discussions and field experiences in applying knowledge of science content and pedagogy to working with elementary level students. Prerequisites: two courses from 820:181, 840:181, or 870:181; junior standing.
820:132. Experience in Environmental Education - 4 hrs.
Current trends in theory and content of environmental education process; theory and practice with techniques, materials, and equipment of environmental education and interpretation in classroom and out-of-doors. Use of nature centers, parks, school grounds for learning and interpretation. Lecture/discussion, 2 hrs./wk; lab and field work, 2 hrs./wk. plus hours arranged.
820:140. Environment, Technology, and Society - 2 hrs.
Emphasis on relationships and interactions of physical, biological, technological, and cultural components of environment. Study of selected interdisciplinary problems. Elaborates on student's previous university experience and develops environmental literacy, Prerequisites: student must have satisfied University entrance requirements in English and Mathematics; completion of both Life Sciences and Physical Sciences requirements; junior or senior standing.
820:181. Investigations in Physical Science - 4 hrs.
Introduction to concepts and theories of physical science and model of effective teaching strategies related to elementary school level. Topies include electricity, magnetism, light, solutions, acids and bases, states of matter. Discussion and/or lab, 5 periods. Prerequisite: 820:031.
820:189. Seminar in Environmental Problems - 1 hr.
Exploration of current topics by student teams. Team examination of various facets of an issue, focusing on development of a factual resume of natural, political, economic and humanistic data which will be integrated for use in developing potential solutions. Value clarification activities.
820:190. 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 teachings interrelations of various sciences; psychological theories of leaming science and how they relate to developing instructional strategies; evaluation techniques common to all sciences. Required for licensure to teach secondary school science; to precede student teaching. Discussion, 2 periods. Ten hours field experience in classroom setting. Prerequisites or corequisites: $200: 128 ; 200: 148 ; 250: 150$; a major or minor in a science area or consent of instructor. Corequisite: 820:196.
820:191. Undergraduate Research in Science Education - $\mathbf{1 - 3}$ hrs.
Research activities under direct supervision of Science Education faculty members. May be repeated for maximum of 4 hours. Prerequisites: consent of instructor and department.
820:194(g). Current Curricula in Middie/Junior Migh School Science - 2 hrs. Cognitive aspects of early adolescent science students and curriculum initiatives in middle level science. Experiences in curriculum development range from single to unit lesson planning, including teaching strategies, assessment and management strategies particular to this age group. Ten hours of field experience in a classroom setting. Discussion, 2 periods. Prerequisites: 820:190; junior standing.

820:195. Science Teaching Colloquium - 1 hr .
Presentation and discussion of current topics related to elementary and secondari science teaching, including scientific and educational research, teaching philose, phies, innovative teaching techniques, etc. Fourteen meetings over a two-semested period. For Science Teaching majors. Offered on credit/no credit basis only.
820:196. 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 analysis of available supplemental materials. Exploration of other technologies as appropriy ate. Discussion/lab, 2 periods. Prerequisite: 240:020. Corequisite: 820:190.
820:198. Independent Study.
820:200. History and Phillosophy of Science - 2 hrs.
Survey of major philosophical developments throughout history of science.
820:213. Teaching-Lesming Models In Science Education - 2 hrs.
Survey of learning theories from behaviorism to constructivism and the way those theories are translated into practice through various pedagogief Prerequisite: 200:148 or equivalent.
820:230. Environmental Education Program Development - 3 hrs.
Application of environmental/conservation education content and process to curriculum and program development. Formulation or revision of programs by students for their own employment situations. Prerequisites: 820:132 or 840:103 or 840:168; two years of experience as a teacher or in an occupation related to environmental/conservation education.
820:270. Special Problems in Science Education - 1-6 hrs.
Problems selected according to needs of students. Prerequisite: consent of chairy person of Science Education Faculty.

## 820:290. Trends in Science Education - 2 hrs.

Establishment of trends from the late 1800's to present and impetus for various "revolutions" in science practices. Prerequisite: consent of instructor.
820:294. Developing Science Curricula - 2 hrs.
Analysis and design of science curricula, with attention to articulation K-12. Prerequisite: $820: 190$ or equivalent.
820:299. Research.

## 830 Environmental Science

830:130. Environmentai Science - 3 hrs.
Functional and holistic approach to understanding the Earth and the interactions of its non-living and living components. Regulatory issues, environmental ethics, environmental law, and scientific principles. Prerequisites: 840:052; 860:048; 920:024 or both $920: 053$ and 920:054.
830:195. Environmental Science/Technology Intermship - 1-10 hrs.
Supervised work experience in conjunction with academic project conducted under faculty guidance. May be repeated for maximum of 12 hours. Prerequisite: consent of department head.
830:200. Environmental Biology - 3 hrs.
Advanced topics in physiological ecology, community ecology, environmental microbiology, ecological genetics, bioenergetics, and biodiversity.
830:235. Topics in Environmental Chemistry - 3 hrs.
Advanced topics in chemistry for environmental science and technology. Topics include water, air, and geochemistry; environmental chemistry, measurement techniques, and chemical ecology.
830:250. Global Systems - 3 hrs.
Advanced topics in global systems for environmental science and technology. Topics include surface and groundwater hydrology, meteorology, atmospheric physics, and oceanography to gain an understanding of physical and geological processes that influence and are influenced by earth's biosphere.
830:285. Readings in Environmentai Science/Technology - 1-10 hrs. Independent readings in environmental science/technology from selected list approved in advance. Prerequisite: consent of department head.
830:289. Environmental Science/Technology Seminar - 1 hr .
Current topics in environmental science/technology. Students will present one seminar per semester. Prerequisite: must be currently enrolled in Environmental Science graduate program.

## 830:292. Environmental Analysis - 3 hrs.

Laboratory methods and techniques in Environmental Science/Technology with emphasis in measurements, chemical constituents, and biological parameters important to understanding environmental processes. Prerequisite: enrolled in graduate studies in biology, chemistry, or environmental science/technology. 830:299. Research - 1-9 hrs.
Prerequisite: must be currently enrolled in Environmental Science graduate program.

## 840 Biology

840:012. Life: The Natural World - 3 hrs.
Energy studied as driving force for both living and non-living processes on earth. Emphasis on energy flow within the ecosystem including its capture in photosynthesis, its drive of biogeochemical cycling and cellular metabolism. For Biology majors and minors counts only for university elective credit. Prerequisite: student must have satisfied University entrance requirements in English and Mathematics.

## 840;013. Life: The Natural World - Lab - 1 hr.

Activities illustrating basic life science concepts regarding energy flow within ecosystems, biodiversity, and their interrelationships with human activities. Leb, 2 periods. Prerequisite: student must have satisfied University entrance requirements in English and Mathematics. Prerequisite or corequisite: 840:012.
840:014. Life: Continulty and Change -3 hrs.
Introduction to contemporary topics in biology. Emphasis on study of gene structure and function and applications of biology to human concerns. For Biology majors and minors counts only for university elective credit. Prerequisite: student must have satisfied University entrance requirements in English and Mathematics.

## 840:015. Life: Continuity and Change - Lab - 1 hr.

Process of science and application of biology to human concerns stressed through student activities involving basic life science concepts encompassing cell structure and function, human genetics, and disease transmission. Emphasis on assisting students in understanding role of biology in our present society. Lab, 2 periods. Prerequisite: student must have satisfied University entrance requirements in English and Mathematics. Prerequisite or corequisite: 840:014 or equivalent.

## 840:033. Princlples of Microblology - 3 hrs.

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. For Biology majors and minors counts only for university elective credit. Sections may be offered exclusively for nurses in training. Discussion, 2 periods; lab, 2 periods.
840:051. General Biology I-4 hrs.
Study of organismic biology emphasizing evolutionary patterns and diversity of organisms and interdependency of structure and function in living systems. Discussion, 3 periods; lab, 2 periods.
840:052. General Biology II - 4 hrs.
Study of cells, genetics, and populations emphasizing chemical basis for life, flow of information, and interactions of populations in ecosystems. Discussion, 3 periods; lab, 2 periods. Prerequisite: 840;051.

## 840:060. Careers in Biology: <br> -2 hrs.

Assists in career planning. Self-assessment, career opportunities, information on requirements, resumes and application procedures in biology and related fields. Offered on credit/no credit basis only. For Biology majors and minors counts only for university elective credit.
840:089. Seminar - 1 hr.

## 840:101. Anatomy and Physiology I -4 hrs.

Structure and function of organ systems of human body. For students in allied health fields or other University approved programs. Others must have consent of department head. For Biology majors and minors, except Biology-Teaching, counts only for university elective credit. Prerequisites: 840:052; 860:048. Prerequisite or corequisite for Allen College students: 860:061. Others must have consent of department head. (Formerly 840:031.)

## 840:102. Anatomy and Physiology II - 4 hrs.

Continuation of $840: 101$. For students in allied health fields or other University approved programs. Discussion, 3 periods; lab, 2 periods. Prerequisite: 840:101. (Formerly 840:032.)

## 840:103. Applied Ecology and Conservation - 3 hrs.

Study of biological diversity, exotic invasions, population biology of rare species, and large ecosystem conservation. Location of endangered species habitat using landforms and soils information and field work. Discussion, 2 periods; field and lab, 3 periods. Prerequisite: 840:052.
840:106. Comparative Anatomy of the Vertebrates - 4 hrs.
Consideration of origin of vertebrates and comparison of anatomy of organ rystems of the classes. Discussion, 2 periods; lab, 4 periods. Prerequisite; 840:052.
840:111. Histology - 4 hrs.
Microscopic anatomy of animal cells, tissues and organs; discussion of their relation to their physiological functions. Discussion, 2 periods; lab, 4 periods. Prerequisite: 840:052 or equivalent.

## 840:112. Invertebrate Zoology - 4 hrs.

Morphology, physiology, phylogeny, taxonomy, and ecology of the invertebrates. Discussion, 2 periods; lab, 4 periods. Prerequisite: 840:052.

## 840:114(g). Comparative Animal Physlology - 3 hrs.

Organ system functions in animals; physical and chemical basis for functions; comparison of systems, primarily in vertebrates. Must be taken with 840:115 if used to fulfill biology core requirement. Discussion, 3 periods. Prerequisites: 840:052; 860:063 or 860:120; junior standing.
840:115(g). Comperative Animal Physlology Laboratory - 1 hr.
Laboratory experience in Comparative Animal Physiology. Cellular and organ physiology of animals. Lab, 3 periods. Prerequisite: junior standing. Prerequisite or corequisite: 840:114.
840:116(g). Neuroblology - 3 hrs.
Molecular and cellular approach to neuroscience: focus on properties of neuron, intracellular communications, behavior, and plasticity. Prerequisite: 840:114 or 840:138 or consent of instructor, junior standing.

## 840:117(g). Endocrinology - 3 hrs.

Hormonal control of various functions including cellular effects and biochemistry of endocrine organs. Discussion, 3 periods. Prerequisites: 840:114 or 840:138; 840:128; 860:123; junior standing.

## 840:120. 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, 2 periods; lab, 2 periods. Prerequisite: 840:052.

## 840:122(g). Plant Physlology - 4 hrs.

How plants work: uptake and use of water and materials, synthesis and transport of organic compounde, growth and development, and responses to environment. Lecture, 2 periods; leb, 4 periods. Prerequisites: 840:052; junior standing. Prerequisite or corequisite: 860:063 or 860:120.
840:124. Plants for Human Use - 3 hrs.
Emphasis on interrelationships between plants and people, including impact of plants on human history. Topics include food, herbs, spices, beverages, forestry, textiles, dyes, and medicines. Discussion, 2 periods; lab, 2 periods. Prerequisite: 840:012 or 840:052.

## 840:126. Plant-Microbe Interactions - 3 hrs.

Beneficial and detrimental interactions between microbes and plants. Plant resistance to diseases, development of pathogenicity in microorganisms, and social impacts of plant diseases. Symbioses involving fungi and bacteria and their impacts on plant growth and agricultural practices. Lecture, 3 periods. Prerequisite: 840:052.

## 840:128(g). Cell Biology - 3-4 hrs.

Foundation in cellular structure, organization, and function, with emphasis on molecular aspects of gene regulation, signal transduction and cell cycle control. Laboratory will correlate with lecture topics and will also emphasize developing laboratory skills and improving analytical and writing abilities. If taken for 3 hours credit: discussion only, 3 periods. If taken for 4 hours credit: discussion, 3 periods; lab, 3 periods. Prerequisites: 840:052; 860:063 or both 860:120 and 860:121; junior standing.

## 840:131(g). Animal Behavior - 4 hrs.

Mechanisms, adaptive significance, evolution, and ecology of behavior and sociality. Discussion, 3 periods; lab, 2 periods. Prerequisites: 840:052; junior standing.
840:132. Parasitology -4 hrs.
Examination of parasite life cycles and host-parasite relations with primary emphases on human pathogens and associated diseases, and parasite identification. Study of parasitic protozoans, worms, and invertebrates. Discussion, 2 periods; lab, th periods. Prerequisite: 840:052.
840:137(g). Human Physlology Laboratory - 1 hr.
Laboratory experience in experimental vertebrate physiology. Focus on organ and cellular aspects of physiology. Lab, 3 periods. Prerequisite or corequisite: 840:138; junior standing.
840:138(g). Human Physlology - 3 hrs.
Functions of organ systems in vertebrates; emphasis on human body. Discussion, 3 periods. Must be taken with $840: 137$ if used to fulfill biology core requirement. Prerequisites: 840:052; 860:048 or 860:070; junior standing.
$840: 140(\mathrm{~g})$. Genetics -4 hrs .
Analytical approach to classical, molecular, and population genetics. Discussion, 3 periods; lab, 2 periods. Prerequisites: 840:052; 860:063 or 860:120; junior standing.

840:142(g). Evolutionary Blology - 3 hrs.
Conceptual overview of evolutionary theory, mechanisms of evolutionary process, speciation and major evolutionary steps. Prerequisites: 840:140; junior standing.

## $840: 144(\mathrm{~g})$. Virology - 4 hrs .

Introduction to virus structure, replication, genetics, pathogenicity, host interactions, detection, epidemiology, evolution and virology methods. Health, agriculture, research and industry applications. Discussion, 3 periods; lab, 2 periods. Prerequisites: 840:151; 860:048 or 860:070; junior standing.
840:146(g). Developmental Blology of Animals - 4 hrs .
Major concepts and central questions of animal development and controlling mechanisms. Laboratory emphasis on experimental inquiry and developmental anatomy. Discussion, 3 periods; lab, 2 periods. Prerequisites: 840:052; junior standing.

## 840:147. Cancer and Emerging Infectlous Disenses - 3 hrs.

Cellular and molecular study of cancer, its epidemiology, standard and novel cancer treatments, examination of emerging and re-emerging infectious diseases, their causative organisms, and human immune responses to them. Discussion, 3 periods. Prerequisite: 840:052.

## 840:148(g). Human Genetics and Human Evolution - 3 hrs.

Genetics and evolution of humans, including human reproductive processes and technologies, single gene and polygenic human traits, genetic engineering, and human evolution, including a description and interpretation of fossil hominoids and behavioral and cultural evolution. Prerequisites: 840:052; junior standing.
$\mathbf{8 4 0 : 1 4 9 ( g ) . ~ A p p l i e d ~ a n d ~ E n v i r o n m e n t a l ~ M i c r o b l o l o g y ~ - ~} 3 \mathrm{hrs}$.
Growth and metabolic diversity of microorganisms focusing on their practical applications for foods, pharmaceuticals, agriculture and the solving of environmental problems. Discussion, 3 periods. Prerequisites: 840:151; 860:048 or 860:070; junior standing.
840:150(g). Immunology - 4 hrs .
Focus on multiple levels of human immunity, from organs/cells to molecular events. Basic immunology and relationships between immunology and various disease states. Laboratory experiences include many commonly used immunology techniques. Discussion, 3 periods; lab, 3 periods. Prerequisites: 840:052; 860:063 or 860:120; junior standing.
840:151. General Microblology - 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: 840:052; 860:048 or 860:070. 840:152(g). Procaryotic Molecular Blology - 4 hrs .
Study of procaryotic genes and their products at molecular level. Laboratory emphasis on techniques of recombinant DNA and analysis of gene expression. Discussion, 2 periods; lab, 6 periods. Prerequisites: 840:052; 860:063 or 860:120; junior standing.

## 840:153(g). Eucaryotic Molecular Bjology - 4 hrs.

Study of eucaryotic genes and their expression at molecular level in eucaryotes. Laboratory emphasis on techniques for methodology such as gene splicing, mRNA purification, cDNA cloning, genomic library construction and screening for genes. Discussion, 2 periods; lab, 6 periods. Prerequisites: 840:128 or 840:140 or $840: 151$ or $840: 152 ; 860: 063$ or $860: 120$; junior standing.
840:154(g). Aquatic Ecology -3 hrs .
Introduction to geological, physicul, chemical, and biological factors that internct to determine functional characteristics of inland waters. Prerequisites: 840:052; 860:048 or 860:070; junior standing.

## 840:155(g). Ecotoxicology - 4 hrs .

Detailed overview of ecological and roxicological aspects of environmental pollution emphasizing responses of populations, communities, and ecosystems to contaminants. Traditional biomonitoring and toxicity testing methods, state-of-the-art concepts and methodologies. Lecture/discussion, 3 periods; lab, 3 periods. Prerequisites: 840:052; 860:048 or 860:070; junior standing.
840:157(g). Biostatistics - 3 hrs.
Introduction to methods used to analyze and interpret numerical data from biological experiments. Emphasis on parametric statistics; use of SAS computer package for computations. Lecture, 2 hours; lab, 2 hours. Prerequisites: 800:046 or equivalent; junior standing; two biology courses beyond the introductory sequence; or consent of instructor.
840:160. Field Zoology of Vertebrates - 4 hrs.
Identification and natural history of Iowa vertebrates. Emphasis on field trips. Discussion, 2 periods; lab and field work, 6 periods. Prerequisite: 840:052.

840:162(g). Omithology - 4 hrs.
Biology of birds, including systematics, behavior, and ecology. Lecture, 3 periods; lab and field, 3 periods. Prerequisites: 840:052; junior standing.
840:164(g). Mammalogy - 4 hrs.
Biology of mammals, including evolutionary history, zoogeography, ecology, and diversity. Laboratory emphasis on identifications, natural history, and field techniques. Lecture, 3 periods; lab and field, 3 periods. Prerequisites: 840:052; junior standing.

## 840:166(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: 840:052; junior standing or consent of department head.
840:167(g). Agriculture and the Enviromment - 4 hes.
Impact of agricultural prectices on soil, water, and surrounding natural ecosystems. On-farm study of crop rotations, soil health, watershed protection, and genetic conservation. Lecture, 2 periods; field, 5 periods plus 1 hour arranged. Prenequisites: one course from Group III biology core, junior standing.

## 840:168. Ecology - 3 hrs.

Relationship of organisms to their environment with emphasis on principles of population, community, and ecosystem structure and dynamics. Prerequisites 840:052.

## 840:169. Ecology Laboratory - 1 hr.

Experiences in sampling, analyzing, evaluation, and contrast of numerical biotic and abiotic data; presentation of results in written reports. Lab, 3 periode. Prerequisite or corequisite: 840:168.
840:170. Entomology - 3 hrs.
Introduction to biology of insects. Discussion, 2 periods; lab, 2 periods. Prerequisite: 840:052.
840:171. Plant-Animal Interactions - 3 hrs.
Integration of plant and animal ecology from an evolutionary perspective. Topics include co-evolution, ecological biochemistry, pollination biology, herbivory, ant-plant mutualism, seed dispersal by mammals, and carnivorous plants. Discussion, 3 periods. Prerequisite: 840:052.

## 840:172. Developmental Plant Anstomy - 4 hrs.

Structure and function of flowering plants, with emphasis on cell and organ development. Lecture, 2 periods; lab, 4 periods. Prerequisite: 840:052.
840:173(g). Environmental Factors and Plant Responses -3 hrs .
Theory and prectice of measurements of environmental factors and plant adaptations and responses to them. Two-thirds of course involves using modern instrumentation to measure radiation quantity and quality; air temperature, humidity and velocity; and soil moisture status. Last third devoted to plant water use and water status, and to photosynthetic gas exchange. Lecture, 2 periods; lab, 2 periods. Prerequisite: $840: 103$ or $840: 154$ or $840: 168 ;$ junior standing.
840:174. Field Blology: Selected topics in field biology, emphasixing handson techniques for field observation, and testing of evolutionary and ecological hypotheses. Offered both on and off-campus in flexible format. Topics and hours indicated in Schedule of Classes. May be repeated for credit on different topic. Prerequisites: 840:052.

## 840:178(g). Fire Management in Ecosystems - 3 hrs.

Study of fire, its relationship to organisms and other components of ecosystems, and implications for management of ecosystems. Examination of prescribed burning as a management tool. Students will be trained in conducting prescribed burns and participate as burn crew members. Lecture/discussion, 2 periods; lab, 2 periods. Prerequisites $840: 103$ or $840: 168$; junior standing.

## 840:179. Cooperative Educntion

Offered on credit/no credit basis only.
840:180(g). Restoration and Management of Natural Lands - 3 hrs .
Ecological principles applied to design, restoration, reconstruction, and management of natural areas, parks, and wildlands. Discussion, 2 periods; lab, 2 periods. Prerequisite: $840: 103$ or $840: 168$; junior standing
840:181. Invertigations in Life Science - 4 hrs.
Introduction to significant concepts and theories of life science and a model of effective teaching strattegies related to 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. Prerequisite: 820:032.

## 840:184. Interpretlve Programs Techniques for Naturalists -3 hrs .

Techniques for development and delivery of interpretive programs, recruiting public participation, fundraising, writing proposale, orgunization of federal, state and local park agencies, budgeting, coordination of citizen support groups. Lecture/discussion, 3 periods. Prerequisite: 820:132.
840:185. Readings in Blology - $\mathbf{1 - 3} \mathbf{h r s}$.
Independent readings in biology from selected list approved in advance. Maximum of 3 hours for biology major or minor. Prerequisite: consent of department.
840:189. Seminar - $1-2$ hrs.
840:190. 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 for a maximum of 4 hours credit. Prerequisites: 9 hours of biology beyond 840:052; consent of department.
840:193(g). Current Curricula in Blology - 2 hrs.
Philosophy, methods, and materials of secondary biology. Examination and evaluation of current curricular materials, curriculum development and appropriate assessment strategies. Ten hours of field experience in grades 6-12 classrooms. Prerequisites: $820: 190$; junior standing.
840:195. Internship/Field Experience - 1 -10 hrs.
Supervised work experience in approved work situation. Offered on credit/no credit basis only. Prerequisite: consent of department.
840:196. Interpretive Programs Seminar - 2 hrs.
Designed to follow internship experience during last two weeks of same semester. Comparison and assessment of interpretive programs including goals, objectives, dissemination techniques and effects on visitor groups. Corequisite: 840:195.
840:197. Undergraduate Practicum in Biology Teaching - 1 hr.
Examination of teaching strategies and practical experience in laboratory teaching through observation and assistance in introductory biology laboratories. Offered on credit/no credit basis only. Prerequisite or corequisite: 840:193; consent of instructor.

## 840:198. Independent Study.

840:202. Graduate Colloquium - 1 hr .
Weekly presentation by a student, faculty member, or visitor on biological topic. Shall be taken twice during initial two semesters for a maximum of 2 hours. Discussion, 1 period.
840:230. Special Problems in Blology - 1-6 hrs.
Credit determined at registration. (Problems in biology other than those for theses or in regular curricular offerings.) Prerequisite: 840:292 recommended; consent of department.

## 840:240. Advanced Cellular and Molecular Biology - 3 hrs.

Selected topics concerning understanding of function of living organisms at molecular and cellular level: regulatory mechanisms, recombinant DNA techniques, gene expression, and genetics of diseases. Lecture/discussion, 3 periods. May be repeated for credit on different topic. Prerequisite: consent of instructor.

## 840:250. Advanced Physiology and Development - 3 hrs.

Selected topics concerning understanding of organ, organ system and organism structure and function: immune system, cellular signaling mechanisms, photosyntheris, and cell motility and development. Lecture/discussion, 3 periods. May be repeated for credit on different topic. Prerequisite: consent of instructor.
840:260. Advanced Ecology - 3 hrn.
Selected topics of ecology, concerning the understanding of relationships among organisms, and between organisms and their environments (natural or artificial): physiological ecology, conservation biology, and aquatic ecology. Lecture/discussion, 3 periods. May be repeated for credit on different topic. Prerequisite: consent of instructor.
840:270. Advanced Systematics and Evolutionary Biology - 3 hrs.
Selected topics concerning understanding of systematic and evolutionary relationships among organisms and evolutionary biology: evolutionary theory, systematics, and origin of life. Lecture/discussion, 3 periods. May be repeated for credit on different topic. Prerequisite: consent of instructor.
840:289. Seminar - 1 hr .
840:292. Research Methods in Blology - 1 hr .
Introduction to research methods in biology. Emphasis on literature review, proposal preparation, and manuscript style. Discussion, 1 period.
840:297. Practicum.
840:299. Research

## 860 Chemistry

860:010. Principles of Chemistry - 34 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. 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. No credit for student with credit in any college chemistry course. Prerequisite: student must have satisfied University entrance requirements in English and Mathematics.
860:020. 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 periodes lab, 2 periods. No credit for student with credit in any college chemistry course.
860:030. Careers in Chemistry - 1 hr.
Presentations describing career opporturities and current areas of research in chemistry. Offered on credit/no credit basis only. No credit toward any major. Discussion, 1 period.
860:044. General Chemistry I - 4 hrs.
Structure of matter, its physical properties and laws describing them, the periodic table and its relation to atomic structure and chemical properties, and nonmetallic elements and their compounds. Students with extensive background in high school chemistry and mathematics may enter 860:070 following departmental advisement. Discussion, 3 periods; lab, 3 periods. Prerequisite: student must have satisfied University entrance requirements in English and Mathematics.
860:048. General Chemistry II - 4 hrs.
Continuation of $860: 044$ 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 pre-professional students and science majors with a special interest in chemistry. Prerequisite: $860: 044$ or equivalent.

## 860:061. Applied General Chemistry -4 hrs.

Basic concepts of chemistry, with particular attention to allied health and nutrition applications. Discussion, 3 periods; lab, 3 periods. No credit for students with credit in 860:044 or 860:070.

## 860:063. Applied Organic and Blochemistry - 4 hrs.

Basic concepts in organic chemistry and biochemistry, including nomenclature, functional groups, reactivity, and macromolecules. No credit for students with credit in 860:120. Discussion, 3 periods; lab, 3 periods. Prerequinite: 860:048 or 860:061 or 860:070.

## 860:070. General Chemisury I-II - 5 hrs.

Accelerated course for well-prepared students. Content similar to 860:044 and 860:048 but covered in one semester. Completion satisfies General Chemistry reqquirement of any chemistry major. Discussion, 4 periods; lab, 3 periods. Prerequisite: consent of department head.
860:110. Descriptive Inorganic Chemistry - 4 hrs.
Properties, structures, reactions, and applications of elements and their most important compounds. Discussion, 3 periods; lab, 3 periods. Prerequisite: 860:048 or 860:070.

## 860:120. Organic Chemistry 1-3 hrs.

Fundamentals of organic chemistry. For majors in the sciences and those preparing for medically related careers. Discussion, 3 periods. Prerequisite: 860:048 or 860:070.
$\mathbf{8 6 0 : 1 2 1 .}$ Organic Chemistry Laboratory 1 - 2 hrs.
Purification and identification techniques and some representative organic reactions. Lab, 6 periods. Prerequisite or corequisite: 860:120.
860:123. Organic Chemistry II - 3 hrs.
Continuation of $860: 120$. Discussion, 3 periods. Prerequisite: 860:120.
860:125. Organic Chemistry Laboratory II - 2 hrs.
Continuation of $860: 121$. Preparation and functional group analysis. Lab, 6 periods. Prerequisites: $860: 120 ; 860: 121$. Prerequisite or corequisite: $860: 123$.

## 860:132. Quantitative Analysls - 4 hrs.

Theory, technique, and calculations of volumetric and gravimetric analyais. Statistical treatment of data. Classical analytical procedures supplemented by instrumental techniques. Discussion, 2 periods; lab, 6 periods. Prerequisite: 860:048 or 860:070.

860 Chemistry/

## 870 Earth Science

## 860:136(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; lab, 6 periods. No credit toward majors requiring $860: 137$ and no credit for students with credit in 860:137. Prerequisites: $860: 063$ or $860: 120 ; 860: 132$; junior standing.

## 860:137(g). Instrumental Analysis - 4 hrs.

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: 860:120; 860:132; 860:140; junior standing. Prerequisite or corequisite: 860:141.

## 860:138(g). Environmental Chemistry $\mathbf{- 3}$ hrs.

Study of sources, reactions, and transport of envirommental pollutants in air and water. Laboratory includes analysis of specific chemical species in environmental samplea. Discussion, 2 periods; lab, 3 periods. Prerequisites: 860:132; junior standing or consent of department head.
860:140(g). Physical Chemistry: Thermodynamics - 3 hrs.
Application of laws of physics to energy changes in chemical processes and reactions. Discussion, 3 periods. Prerequisites: 800:061; 880:056 or $880: 131$; junior standing.

## 860:141(g). Physical Chemistry: Kinetics, Quantum Mechanics, and Spectroscopy - 3 hrs.

Application of laws of physics to atomic and molecular structure and behavior. Discussion, 3 periods. Prerequisites: $800: 061 ; 880: 056$ or $880: 131$; junior standing 860:142(g). Principles of Physical Chemistry - 3 hrs.
Physical aspects of chemistry for needs of high school chemistry teacher, and for students in biological sciences. Discussion, 3 periods. Recommended: 880:054. Prerequisites: 800:046; 860:048 or 860:070; junior standing or consent of department head.
$\mathbf{8 6 0 : 1 4 3 ( g ) . ~ P h y s i c a l ~ C h e m i s t r y ~ L a b o r a t o r y ~ - ~} \mathbf{1 - 3}$ hrs.
Physical measurement techniques in chemistry. Meets 3-9 hours per week. Two credit hours should be taken for the B.S. and B.A. Chemistry Major programs; students should enroll concurrently with, or after, their second semester of physical chemistry. Those with credit in $860: 142$ may take one credit hour. Prerequisites: 860:132; 860:140 or $860: 141$ or $860: 142$; junior standing.
860:145(g). Inorganic Chemistry - $\mathbf{3}$ hrs.
Applications of principles of physical chemistry to inorganic systems, with emphasis on chemistry of transition elements. Discussion, 3 periods. Prerequisites: 860:110; 860:120; 860:141; junior standing.
860:147(g). Inorganic Chemistry Laboratory - 2 hrs.
Preparation, analysis, and study of properties of inorganic compounds. Prerequisites: $860: 121$; junior standing. Prerequisite or corequisite: $860: 145$.
860:154(g). Biochemistry I-4 hrs.
Structure and function of biologically important molecules including amino acids, proteins, carbohydrates, lipids, and nueleic acids; intermediary metabolism; enzyme kinetics. Lecture, 4 periods. Prerequisites: junior standing $C$ - or higher in 860:123.
860:155(g). Blochemistry II - 2 hrs.
Continuation of $860: 154$. Bioenergetics, photosynthesis, additional metabolic pathways, enzyme mechanisms, macromolecular biosynthesis, recombinant DNA, and current topics in biochemistry. Lecture, 2 periods. Prerequisites: 860:154; junior standing.
860:156(g). Blochemistry Laboratory - 2 hrs.
Introduction to biochemical methodology. Chromatographic and electrophoretic purifications of proteins, lipids, and inucleic acids; chemical characterizations of amino acids, peptides, carbohydrates, and fatty acids; study of enzyme kinetics. Lab, 6 periods. Prerequisite: junior standing. Prerequisite or corequisite: 860:154.
860:161(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 assignment of structure to organic compounds. Discussion, 3 periods. Prerequisites: $860: 121 ; 860: 132$; junior standing; consent of department head. Credit applied to B.S. Chemistry major requires additional prerequisite of 860:140 or 860:141.

## 860:180. Undergraduate Research in Chemistry $=\mathbf{1 - 3}$ hrs.

May be repeated for maximum of 6 hours. Prerequiaites: $860: 121 ; 860: 132$; consent of department head. Credit applied to B.S. Chemistry major requires additional prerequisite of 860:140 or 860:141.

860:193(g). Current Curricula in Chomistry - 2 hrs.
Materials and methods in chemistry pertinent to modern high school teaching programs. Evaluation techniques specific to teaching of chemistry. Discussioni 2 periods. Prerequisites: 820:190; junior standing.

## $\mathbf{8 6 0 : 2 1 0}$. Advanced Inorgank Chemistry - $\mathbf{3}$ hrs.

Coordination chemistry, organometallics, materials chemistry, or other advanced topics in inorganic chemistry. May be repeated on different topice with consent of instructor. Discussion, 3 periods. Prerequisite: 860:145 or consent of instructor. (Formerly 860:230.)

## 860:220. Advanced Organic Chemistry - 3 hrs.

Product analysis, kinetics, and mechanism of organic reactions. May be repenth ed on different topics with consent of instructor. Discussion, 3 periode Prerequisites: 860:123; 860:141; or consent of instructor.
$\mathbf{8 6 0 : 2 4 0}$. Special Problems in Chemistry $\mathbf{- 1 - 6 ~ h r s . ~}$
Credit determined at registration. Problems selected according to needs of students. Prerequisite: consent of department head.
860:241. Advanced Physical Chemistry -3 hrs.
Molecular structure, chemical kinetice, quantum mechanics, or other advanced topics in physical chemistry. May be repeated on different topics with consent of instructor. Discussion, 3 periods. Prerequisites: 860:140; 860:141; or consent of instructor.
860:242. Advanced Analytical Chemistry - 3-4 hrs.
Chromatography, spectroscopy, electrochemistry, or other advanced topies in analytical chemistry. May be repeated on different topics with consent of instructor. Discussion, 3 periods; if taken for 4 hours, lab 3 additional periode Prerequisites: 860:137; 860:140; 860:141; or consent of instructor.
360:289. Seminar - 1 hr.
Current topics in chemistry. May be repeated for credit.
860:292. Research Methods and Chemical Lherature - $\mathbf{1 - 3} \mathbf{h r s}$.
Concepts and procedures for developing a chemical research problem; use and importance of chemical literature.
860:299. Research

## 870 Earth Science

## 870:010. Astronomy - 3-4 hrs.

Introduction to Universe, solar system, stars, and galaxies, including apparent motions of bodies in the sky; development of astronomy and its impact on humankind. Prerequisite: student must have satisfied University entrance requirements in English and Mathematics.

## 870:011. Astronomy Laboratory - 1 hr.

Fundamentals of astronomical observation, the use of introductory astronomice instruments, and application of charts and almanacs to finding one's way about the night sky. Prerequisite: consent of instructor. Corequisite: 870:010.

## 870:021. Elements of Weather - 3 hrs.

Meteorological elements and their applications to environment; interpretation of weather maps and weather data; forecasting and briefing on daily weather. Discussion, 3 periods. No credit for those who have completed 870:121, Prerequisite: student must have satisfied University entrance requirements in English and Mathematics.

## 870:022. Elements of Weather Laboratory - 1 hr.

Fundamentals of meteorological observation, use of basic meteorological instruq ments, and applications of maps and charts to understanding forecasta, Intended for science teaching majors and minors. .Leb, 2 periods. Prerequisite or corequisite: 870:021; consent of instructor.

## 870:031. Physical Geelogy - 4 hrs.

Introduction to physical environment, emphasizing materials of the Earth and processes that lead to changes within and on the Earth. Lab emphasis: rocks and minerals, geologic processes, and landscape development. Discussion, 3 periodes lab, 2 periods. Prerequisite: student must have satisfied University entrance requirements in English and Mathematics.

## 870:035. Earth History - 4 hrs.

Methods and principles used in deciphering the 4.6 billion-year history of our planet; discussion of history and evolution of life on Earth and examination of major physical and plate-tectonic events through geologic time. Discussion, 3 periods; lab, 2 periods. Prerequisite: 870:031 or equivalent.

## 870:037. Field Studies in

$\qquad$ -1-4 hrs.
Field studies in various areas of Earth Science: geology, oceanography, paleontology, meteorology, and astronomy. To be preceded by seminars on proposed study area. Student collection of data in the field and reports on their findings. May be repeated for credit in different study area. Only 4 hours may be applied to the Earth Science minor. Prerequisites: an 870:0xx course appropriate to the specific field studies and approved by department head; consent of instructor.
870:109(g). Fundamentals of Astronomy - 3 hrs .
Basic principles of astronomy intended primarily for teachers. No credit for students with credit in 870:010 or its equivalent. Prerequisites: one year of high school algebra or equivalent; junior standing; consent of department head.
870:111(g). Fundamentals of Weather -3 hrs .
Basic principles of meteorology intended primarily for inservice teachers. Prerequisites: junior standings consent of department head.
$870: 113(\mathrm{~g})$. Topics in Earth Sclence - 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 indicated in Schedule of Classes. May be repeated for credit on different topic. Application to major requires consent of department heed. Prerequisite: junior standing
870:115(g). Volcanology - 3 hrm .
Origin, classification, eruptive mechanisms and hazards of volcanoes, and related phenomena. Discussion, 2 periods; lab, 2 periods. Prerequisites: 870:031 or equivalent; junior standing.

## 870:121(g). Mateorology - 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: 860:044; 870:021; 880:054; junior standing

## 870:122(g). Weather Analysis and Forecasting - 3 hrs .

Focus on middle latitude weather systems, principally those of the cold season. Topics include discussion of historical conceptions and models of extratropical cyclones, present understanding of these weather systems, and techniques of analysis and prediction. Important component is hands-on forecasting in group weather briefings and in a daily forecasting contest. Discussion/lab, 4 periods. Prerequisites: $870: 121$; junior standing.

## 870:123(g). Air Quality - 4 hrs.

Topics from atmospheric dynamics, atmospheric chemistry, physical meteorology, and micrometeorology; atmospheric transport processes in time and space; local and regional concentrations of pollutants; implications of air pollution control strategies; numerical modeling techniques with application to air quality issues; field studies and remote sensing of atmospheric transport. Discussion, 4 periods. Prerequisites: $800: 060 ; 870: 121 ;$ junior standing.
870:125(g). Principles of Paleontology - 4 hrs.
Basic principles of paleontology with special emphasis on invertebrate animals of the geologic past, their fossilization, morphology, description, classification, and evolutionary trends. Laboratory studies of major groups of invertebrate fossils. Investigations of faunal suites and interpretation of their geologic age and paleoecology. Discussion, 2 periods; lab, 4 periods. Prerequisites: 870:035; junior standing.

## 870:128(g). Fundamentals of Geology - 4 hrs

Basic principles of physical geology intended primarily for inservice teachers. Prerequisites: junior standing; consent of department head.

## 870:129(g). Structural Geology - 4 hrs .

Origins and mechanics of rock deformation. Description and analysis of structural features. Field trip. Discussion, 2 periods; lab, 4 periods. Prerequisites: 870:031; 870:035; junior standing.

## 870:130. Crystellography -2 hrs.

Morphologic, structural, and $\mathbf{x}$-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: 860:044 or equivalent; 800:046 or knowledge of trigonometry.

## 870:131. Systematic Mineralogy - 2 hrs.

Crystal chemistry, determinative methods, and systematic description of natu-rally-occurring compounds with emphasis on rock-forming minerals. Laboratory exercises cover advanced determinative techniques. Discussion, 2 periods; lab, 6 periods (nine-week course). Prerequisites: 870:031; 870:130.

## 870:135. Optical Mineralogy-Petrography -4 hrs .

Optical properties of minerals and use of the petrographic microscope. Introduction to petrography of igneous, metamorphic, and sedimentary rocks, with emphasis on identification of minerals in thin sections. Discussion, 2 periods; leb, 6 periods. Prerequisite: 870:131.

## 870:136(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, 4 periods. Prerequisite: junior standing. Prerequisite or corequisite: 870:035.
870:137(g). Fiold Studies in $\qquad$ $-1-4 \mathrm{hrs}$.
Field studies in various areas of Earth Science: geology, oceanography, paleontology, meteorology, and astronomy. To be preceded by seminars on the proposed study area. Student collection of data in the field and reports on their findings. May be repeated for credit in different study area. Only 4 hours may be applied to the Earth Science minor. Prerequisites: an 870:1xx course appropriate to the specific field studies and approved by departraent head; junior standing; consent of instructor.
870:141(g). Geomorphology - 3 hrs.
Classification, description, origin, and development of landforms and their relationship to underlying structure and lithology; emphasis on geomorphic processes. Includes fluvial, glacial, periglacial, eolian, karstic, weathering, and mass-movement processes and features. Discussion, 2 periods; labs and field trips, 2 periods. Prerequisites: 870:031 or equivalent; junior standing.
870:142(g). Igneous Patrology - 4 hrs.
Description, classification, and genesis of igneous rocks. Discussion, 2 periods; lab, 6 periods. Prerequisites: 800:060; 870:135; junior standing.
$\mathbf{8 7 0 : 1 4 3 ( g ) . ~ G e o c h e m i s t r y ~ - ~} 4$ hrs.
Distribution of elements in the Earth and chemical laws governing those distributions. Discussion, 2 periods; lab, 6 periods. Prerequisites: 860:048 or 860:070; junior standing.
870:151. Planets - 2 hrs.
Examination of the Sun's family of nine planets, attendant satellites, and interplanetary debris; processes at work in the Solar System; search for planets elsewhere in the Galary. Discussion, 1 period; lab, 2 periods. Prerequisites: 870:010 or equivalent.
870:152. Stars - 2 hrs.
Study of structure and the evolution of stars; the Sun, protostars, red giants, white dwarfs, variable stars, supernovae, pulaars, and black holes. Discussion, 1 period; lab, 2 periods. Prerequisite: 870:010 or equivalent.

## 870:153. Galaxies and Cosmology - 2 hrs

Study of the Milky Way Galaxy and other galaxies. Examination of active galaxies and radio galaxies, quasars, and galactic black holes. Discussion of the structure, origin and fate of the Universe. Discussion, 1 period; lab, 2 periods. Prerequisite: 870:010 or equivalent.
870:154(g). Observational Astronomy - 2 hrs .
Use of astronomical instruments, (telescopes, cameras, and spectroscopes), along with observing aids, (charts, catalogs, and ephemerides), for collection, analysis, and interpretation of astronomical data. Prerequisites: 870:010 (4 semester hours) or equivalent; junior standing.
870:160(g). Geology of lowa - 2 hrs.
lowa's geologic history Precambrian to present. 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.
870:165(g). Oceanography - 3 hrs.
Basic principles of geological, biological, chemical, and physical oceanography; emphasis on marine geology. Physiographic features of ocean basins, coastal features and processes, oceanic sediments, biological and geological resources, and ocean management. Discussion, 3 periods. Prerequisites: 870:031 or equivalent; junior standing.

## 870:171(g). Environmental Geology - 3 hrs.

Emphasis on geology's relation to social, economic, and political realms through team preparation of simulated environmental-impact statements or planning documents. Analysis of issues or problems of local concern where possible. Discussion, 3 periods. Prerequisites: 870:03I or equivelent; junior standing.

## 870 Earth Science/ 880 Physics

## 870:173(g). Environmental Hydrology - 3 hrs.

Introduction to environmental aspects of watershed hydrology. Surface water hydrologic processes, pollution of surface water resources, surface water ground water interactions, unsaturated zone hydrologic processes, movement of chemicals in soils, site characterization, and soil remediation techniques. Discussion, 3 periods. Prerequisites: 800:060; 870:031; junior standing.

## 870:175(g). Hydrogeology - 3 hrs.

Principles and applications of hydrogeology including study of runoff, stream flow, soil moisture, and ground water flow. Examination and analysis of ground water flow to wells, regional ground water flow, geology of ground water occurrence, water chemistry of ground water, water quality and ground water contamination, ground water development and management, field methods, and ground water models. Discussion, 3 periods. Prerequisites: 800:060; 870:031; junior standing.

## 870:180. 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 maximum of 6 hours. Prerequisites: consent of instructor and department head.
870:181. Investigations in Earth Sclence - 4 hrs.
Introduction to significant concepts and theories of earth science and a model of effective teaching strategies related to elementary school level. Topics include geologic materials and processes acting on them and fundamentals of earth history, weather, and astronomy. Discussion and/or lab, 5 periods plus arranged. Prerequisite: 820:031.
$\mathbf{8 7 0 : 1 8 9 ( g ) . ~ R e a d i n g s ~ i n ~ E a r t h ~ S c i e n c e ~ - ~ 1 - 3 ~ h r s . ~}$
Maximum of 3 hours may be applied to earth science or geology majors or minors. Prerequisites: junior standing, consent of instructor and department head.
870:191. Undergraduate Practicum - 1-2 hrs.
Practical experience in teaching; participation in laboratory and instructional assistance under direct supervision of staff member. May be repeated for maximum of 4 hours. Prerequisites: junior or senior standing; consent of instructor and department head.

## 870:292. Research Methods in Earth Science - 3 hrs.

Methods and evaluation of research in the earth sciences. Individual exploration of possible research or thesis project in the earth sciences. Discussion, 3 periods. 870:297. Practicum.
870:299. Research.

## 880 Physics

880:011. Conceptual Physics - 4 hrs.
Energy; temperature and heat; waves and sound; electricity and magnetism; light and color; atomic and nuclear structure of matter. Emphasis on observation, interpretation, and conceptual understanding of physical phenomena. Discussion, 3 periods; lab, 2 periods. Students may not earn credit in both $880: 011$ and $880: 012$. Prerequisite: student must have satisfied University entrance requirements in English and Mathematics.

## 880:012. Physics in Everyday Life - 3 hrs.

Basic laws and concepts of physics introduced and demonstrated through operation of everyday devices and systems. Emphasis on understanding physical principles behind working of modern technologies and interplay between science and technology. Students may not earn credit in both 880:011 and 880:012. Prerequisite: student must have satisfied University entrance requirements in English and Mathematics.
880:040. Elementary Holography - $1 \mathbf{h r}$.
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. Half-semester course. Discussion, 1 period; lab, 2 periods.

## 880:0S4. General Physics I-4 hrs.

Algebra-based introductory course covering Newtonian mechanics, gravitation, and thermal plysics. Emphasis on conceptual understanding of physical principles through group investigations and laboratory activities. Discussion/lab, 5 periods. Prerequisite: high school algebra and trigonometry or equivalent.

## 880:056. General Physics II-4 hrs.

Algebra-based introductory course covering electricity, magnetism, optics, and modern physics. Emphasis on conceptual understanding of physical principles through group investigations and laboratory activities. Discussion/lab, 5 periods. Prerequisite: 880:054 or 880:130.

880:120(g). Elementary Atomic and Nuclear Physics - 4 hrs.
Atomic and nuclear structure; elementary particles; radioactivity; wave-partice duality; interactions and detection of radiation. Lower mathematical level than 880:137. Discussion, 3 periods; lab, 2 periods. Cannot apply toward an undex] graduate or graduate physics major. Prerequisites: 880:056; junior standing.
880:130. Physics I for Science and Engineering - 4 hrs.
Calculus-based introductory course covering Newtonian mechanics, gravitation, and thermal physics. Laboratory activities. Discussion/lab, 5 period Prerequisite: one year of high school physics or equivalent. Prerequisite or corequisite: 800:060.

## 880:131. Physics II for Science and Engineering - 4 hrs.

Calculus-based introductory course covering electricity, magnetism, and optic Laboratory activities. Discussion/lab, 5 periods. Prerequisites: 880:054 with a minimum grade of B or $880: 130$. Prerequisite or corequisite: 800:061.
880:132. Physics Ill: Theory and Simulation - 3 hrs .
Calculus-based course covering the more advanced topics in introductor? physics. Emphasis on developing analytical and computational skills needed to study physics at a more advanced level. Topics include: Newtonian mechanicl and applications; Maxwell's equations and applications. Prerequisite: 880:131.
880:134(g). Envirommental Applications of Physics - $\mathbf{3}$ hrs.
Quantitative analysis of variety of specific, realistic problems in environmental science. Principles of physics and some results from chemistry will be applied to construction of mathematical models in high-level computational environmend with emphasis on systems thinking, box models, and flows. Prerequisited 800:061; 860:048 or 860:070; 880:056 or 880:131; junior standing.
880:136(g). Thermodynamics and Statistical Mechanics - 4 hrs,
General principles of classical thermodynamics and applications, e.g., to firstorder phase transitions; general principles of statistical mechanics and applicad tion, e.g., to the classical ideal gas. Prerequisites: 800:062; 880:132; 880:137 junior standing.

## 880:137(g). 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. Prerequisites: 880:131; junior standing.

## 880:138(g). Modem Physics 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: junior standing. Prerequisite or corequisite 880:137.
880:139(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. Prerequisites: $880: 137$; junior standing.
880:140(g). Modern Optics: Holography and Imaging - 3 hrs.
Holography is used as vehicle for learning modern optical techniques and for understanding basic wave interference properties of light. Topics include 3-D image formation; mirror, lens, and hologram ray tracing; holographic gratings and mirrors; holographic interferometry and color holography. Discussion, 2 periods; lab, 2 periods. Prerequisites: 880:056 or 880:131; junior standing.
880:141(g). Modern Optics: Lasers - 3 hrs.
Laser principles, output characteristics and safe operating practices; industrial, medical and scientific applications. Discussion, 2 periods; lab, 2 periods. Prerequisites: 880:056 or 880:131; junior standing.

## 880:142(g). Musical Acoustics - 3 hrs.

Fundamental acoustic phenomena and their implications for musical performance and instrument design. Waves; auditory mechanisms; tuning and temperaments; instrument resonances and adjustment; nonlinear mechanisms of sound production; human voice, radiation of sound; sound in rooms. Discussion, 2 periods; lab, 2 periods. Prerequisites: Physical Science and Life Science requirements of General Education Category $3 ; 580: 012$ or equivalent; junior standing.

## 880:145(g). Vibrations and Sound - 3 hrs.

Laboratory-centered course of fundamental and applied experiments related to vibrations; analysis and synthesis of vibrations and sounds; transmission, reflection, refraction, attenuation, and dispersion of sound waves; resonance, interference, and diffraction phenomena; and noise measurement and attenuation. Includes Fourier analysis. Discussion, 2 periods; lab, 2 periods. Prerequisites: 880:132; junior standing.

## 880:150(g). Computational Physics - $\mathbf{3}$ hrs.

Computer simulations and numerical solutions of behaviors of important physical systems, emphasizing those that are very difficult or impossible to analyze by traditional means, for example, nonlinear oscillators or phase transitions in the Ising Model. Prerequisites: 800:149; 880:132; 880:137; junior standing.

## 880:152(g). Electronics I-4 hrs.

Basic dc and ac circuits; electrical measurements; power supplies; transistor circuits; operational amplifier circuits. Discussion, 2 periods; lab, 4 periods. Prerequisites: 880:056 or 880:131; junior standing or consent of department head. 880:154(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: 880:152 or equivalent; junior standing.

## 880:157(g). Fundamentals of Physics I - 4 hrs.

Algebra-based introductory course covering Newtonian mechanics, gravitation, and thermal physics. Emphasis on conceptual understanding of physical principles through group investigations and laboratory activities. Enrollment limited to graduate students other than physics majors. Discussion/lab, 5 periods. Prerequisites: high school algebra and trigonometry or equivalent; junior standing; consent of department head.

## 880:158(g). Fundamentals of Physics II - 4 hrs.

Algebra-based introductory course covering electricity, magnetism, optics, and modern physics. Emphasis on conceptual understanding of physical principles through group investigations and laboratory activities. Enrollment limited to graduate students other than physics majors. Prerequisites: 880:157; junior standing; consent of department head.

## 880:166(g). Classical Mechanics - 4 hrs.

Vectors and kinematics; force and motion; work and energy; Lagrange's equations; gravity; oscillations; rigid-body motion; accelerated reference frames. Prerequisites: 800:061; 880:132; junior standing.
880:167(g). Electrodynamics - 4 hrs.
Vector calculus. Electrostatic fields and dielectrics; magnetic fields, magnetic forces, and magnetic materials; Maxwell's equations and electromagnetic waves.
Prerequisites: 880:132; junior standing.

## 880:172(g). Quantum Mechanics - 4 hrs.

Solution of Schrodinger equation for several systems. Superposition of states. Matrix formulation. Physical interpretations. Prerequisites: 809:149; 880:137; 880:166 or consent of instructor; junior standing.

## $880: 174(\mathrm{~g})$. Applied Quantum Physics - 4 hrs .

One-electron atoms; spin; multielectron atoms; quantum statistics; molecules; solids, band theory, semiconductors, and superconductors; nuclear models; nuclear decay and reactions. Discussion, 3 periods; lab, 2 periods. Prerequisites: 880:137; 880:138; junior standing.

## 880:179. Cooperative Education.

Applied physics internship under 880:179 should be taken during the junior or senior year. If unable to do so, the internship may be done under 880:184 with consent of department. Successful completion of either $880: 179$ or $880: 184$ requires both a written and an oral report. Offered on credit/no credit basis only.
880:180. Undergraduate Research in Physics - 1-6 hrs.
Research activities under direct supervision of sponsoring staff members or at a national laboratory. Should normally be taken during senior year. Successful completion of the research experience requires both a written and oral report.
Prerequisites: consent of department; minimum overall 2.50 GPA .
880:184. 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 completed work. Offered on credit/no credit basis only. Prerequisites: consent of department; minimum overall 2.50 GPA.

## 880:185(g). Laboratory Projects - 1-3 hrs.

Experimental activities to meet individual needs and interests not normally included in other courses. Maximum of 3 hours may be applied to a physics major or minor. Prerequisites: junior standing; consent of department.
880:187. Physics Seminar -1 hr .
Participation in at least 12 physics colloquia; oral report on research topic or internship. Prerequisite: junior standing.
880:189(g). Readings in Physics $\mathbf{- 1 - 3}$ 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. Prerequisites: junior standing; consent of department.

## 880:190(g). Topics in Theoretical Physics - 2-4 hrs.

Tutorial course for students who wish to pursue graduate study in physics. Topics may include: variational principles in mechanics, tensor representation of rigid-body rotations, boundary-value problems in electrostatics, and solution of the wave equation in electrodynamics. Prerequisites: $800: 149 ; 880: 166$; 880:167; senior standing in B.S. Physics major; consent of department.

## 880:193(g). Current Curricula in Physics - 2 hrs.

Philosophy, methods, materials, and evaluation techniques for high school physics. Discussion, 2 periods; ten hours of field experience in a secondary school classroom. Prerequisites: 820:190; 8 hours of physics or consent of instructor; junior standing.

## 880:250. Special Problems in Physics - 1-6 hrs.

Credit determined at registration. Problems selected according to needs of students. Prerequisite: consent of department.
880:299. Research.

## 890 Iowa Lakeside Laboratory

Iowa Lakeside Laboratory is a field station located in the Iowa Great Lakes region of northwest lowa. It is run cooperatively by the three Regents' Universities. Each summer lowa Lakeside Laboratory offers full immersion, field-oriented courses in the natural sciences (archaeology, biology, ecology, environmental science, evolution, geology, and plant and animal taxonomy). Both undergraduate and graduate courses are offered. For information about courses being offered this summer and registration/housing forms, see the current Iowa Lakeside Laboratory Bulletin. This bulletin can be obtained from the UNI Department of Biology after midJanuary or from Iowa Lakeside Laboratory ( 131 Bessey Hall, Iowa State University, Ames, IA 50011-1020 Phone: (515) 294-2488. E-mail: Lakeside@iastate.edu). The complete bulletin is also available on the World Wide Web. The URL is http://www. lakeside.iastate.edu. Early registration is advisable because enrollment is limited to only 8 to 10 students in most courses.

## 890:031. Ecology - 4 hrs.

Introduction to the principles of ecology at the population; community, and ecosystem level. Field studies of local lakes, wetlands, and prairies are used to examine factors controlling distributions, interactions, and roles of plants and animals in native ecosystems.

## 890:035. Physical Geology - 4 hrs.

Landscape development as a product of geologic materials and processes. Emphasis on field studies of composition of the earth, glaciation, weathering, erosion, and sedimentation. Offered alternating summers, 2002.

## 890:040. Archaeology - 4 hrs.

Nature of cultural and environmental evidence in archaeology and how they are used to model past human behavior and land use; emphasis on Iowa prehistory; basic reconnaissance surveying and excavation techniques.

## 890:043. Illustrating Nature - Sketching - 2 hrs.

Sketching plants, animals, and terrain. Visual communication, development of a personal style, and integration of typographic and visual elements on a page will be emphasized.
890:044. Illustrating Nature - Photography - 2 hrs.
Beginning to intermediate technical and compositional aspects of color photography of natural areas and their plants and animals.
890:050. Undergraduate Internships - 1-5 hrs.
Placement with county conservation boards, camps, parks, etc., for experience as interpreters, rangers, and technicians. Prerequisite: sophomore standing; consent of instructor.

## 890:064. Biology of Aquatic Plants -3 hrs.

Field-oriented introduction to the taxonomy and ecology of aquatic plants in lakes, wetlands and rivers. Individual or group projects. Offered alternating summers, 2001.

## 890:100(g). Techniques for Biology Teaching - 1-2 hrs.

Development and implementation of laboratory exercises suitable for inclusion in elementary, middle, high school, and community college biology and environmental courses. Exercises will be built around common organisms and ecosystems in lowa. Field trips.

| A. | Animal Biology |
| :--- | :--- |
| B. | Plant Biology |
| C. | Fungi and Lichens |
| D. | Aquatic Ecology |
| E. | Prairie Ecology |
| F. | Wetland Ecology |
| G. | Limnology |
| H. | Animal Behavior |
| I. | Insect Ecology |
| L. | The Leopold Education Project |
| W. | Project WET |

## 890:101. lowa Natural History - 4 hrs.

Biological diversity and its causes examined through lectures and field trips to native lake, marsh, forest, and prairie habitats; topics include measuring the environment, sampling and identifying organisms, experimenting with the ecosystem, understanding species interactions, and appreciating influences of past and present climates and geological events on natural ecosystems of the region. Prerequisite: one course in the biological sciences. Offered alternating summers, 2001.

## 890:102(g). Plant-Animal Interactions - 3 hrs.

Introduction to ecology and co-evolution of plants and animals; emphasis on dispersal, pollination, and plant-herbivore interactions; field and laboratory work, reading, discussion. Prerequisite: one course in the biological sciences. Offered alternating summers, 2000.

## 890:103(g). Aquatic Ecology - 4 hrs.

Analysis of aquatic ecosystems; emphasis on basic ecological principles; ecological theories tested in the field; identification of common plants and animals. Prerequisite: courses in ecology, chemistry, and physics.

## 890:105(g). Plant Taxonomy - 4 hrs.

Principles of classification and evolution of vascular plants; taxonomic tools and collection techniques; use of keys. Field and laboratory studies emphasizing identification of local flowering plants and recognition of major plant families.
890:107(g). Field Parasitology - 3 hrs.
Ecology and life history of parasites, protozoans, helminths, arthropods; field and laboratory investigations including preparation, identification and morphology of representative types and stages; general and comparative concepts of parasitology. Offered alternating summers, 2001.

## 890:109(g). Freshwater Algae - 4 hrs.

Structure and taxonomy of freshwater algae based on field collected material; emphasis on genus-level identifications, habitats visited include lakes, fens, streams, and rivers; algal ecology. Offered alternating summers, 2001.
890:119(g). Evolution - 4 hrs.
Mechanisms and patterns in microevolution and macroevolution. Field exercises will emphasize studies of natural selection, adaptation, genetic variation, and population genetics of local plant and animal populations.

## 890:121(g). Plant Ecology - 4 hrs.

Principles of plant population, community, and ecosystem ecology illustrated through studies of native vegetation in local prairies, wetlands, and forests. Group or individual projects.

## 890:122(g). Prairie Ecology - 4 hrs.

Basic patterns and underlying physical and biotic causes of both regional and local distributions of plants and animals of North American prairies; field and laboratory analyses and projects. Prerequisite: familiarity with basic principles in biological sciences and ecology. Offered alternating summers, 2000.

## 890:124(g). Wetland Ecology - 4 hrs.

Ecology, classification, creation, restoration, and management of wetlands. Field studies will examine the composition, structure, and functions of local natural wetlands and restored prairie pothole wetlands. Individual or group projects. Offered alternating summers, 2000.
890:126(g). Omithology -4 hrs.
The biology, ecology, and behavior of birds with emphasis on field studies of local avifauna. Group projects stress techniques of population analysis and methodology for population studies.

890:127(g). Introduction to Insect Ecology - 4 hrs.
Field and laboratory study of insects, their diversity, life history; emphasis on ecology and behavior. Offered alternating summers, 2001.
890:128(g). Fish Ecology - 4 hrs.
Basic principles of fish interaction with the biotic and abiotic environment. Field methods, taxonomy, and biology of fish with emphasis on the fish fauna of northwestern Iowa. Offered alternating summers, 2000.
890:129(g). Vertebrate Ecology and Evolution - 4 hrs.
Field and laboratory study of representative vertebrates of northwestern Iowa Observations and experimentation emphasize ecological histories by integratin concepts of functional morphology, behavioral ecology, and evolutionary biology 890:130(g). Natural History Workshop - 1-2 hrs.
Offered as demand warrants. Five day-long, non-technical introductions to a specific aspect of the natural history of the upper Midwest or techniques for studying natural history.
A. Amphibians and Reptiles
B. Birds and Birding
C. Nature Photography
D. Mushrooms and Other Fungi
E. Iowa's Trees and Forests
F. Fish Biology
G. Prairies and Prairie Restoration
H. Common Algae
I. Common Insects
J. Aquatic Plants
K. Life in Rivers
L. Life in Lakes
M. Mosses and Liverworts
N. Natural History of Iowa Great Lakes Region
P. Field Archaeology
S. SCUBA Diving
T. Sketching Nature

## 890:131. Flora of the lowa Great Lakes Region - 2 hrs.

890:142(g). Watershed Hydrology and Surficial Processes - 4 hrs .
Effects of geomorphology, soils, and land use on transport of water and materiala (nutrients, contaminants) in watersheds. Fieldwork will emphasize investigad tions of the Iowa Great Lakes watershed. Prerequisites: four courses in the physy ical or biological sciences or engineering.
890:145(g). Introduction to Environmental Planning - 4 hrs.
Introduction to environmental planning theories and methods, emphasis on environmental planning using GIS modeling approaches and public participation in the planning process. Students should have basic familiarity with ArcView and database programs. Individual or group environmental plannind projects. Offered alternating summers, 2002.
890:150(g). Watershed Modeling and GIS - 4 hrs .
GIS techniques for watershed hydrologic and water quality modeling and water resource management, including various approaches to watershed analysis, modeling and management; analytical tools for modeling watershed hydrologif and water quality; and case studies in modeling and managing rural and urban watersheds. Offered alternating summers, 2001.

## 890:155(g). Freshwater Invertebrates -3 hrs.

Field-oriented introduction to the identification, life-history, and ecology of common, free-living freshwater invertebrates of north-temperate lakes, rivers, and wetlands. Emphasis on the role of invertebrates in aquatic food chains and litter processing. Prerequisite: one or more ecology courses.
890:156(g). Advanced Field Ornithology - 2 hrs.
Field study of birds of the upper Midwest; extended field trip to Minnesota and Wisconsin; individual or group project. Field trip fee.

## 890:160(g). Restoration Ecology - 4 hrs.

Ecological principles for the restoration of native ecosystems; establishment (site preparation, selection of seed mixes, planting techniques) and management (fire, mowing, weed control) of native vegetation; evaluation of restorations. Emphasis on the restoration of prairie and wetland vegetation. Prerequisite: a course in ecology. Offered alternating summers, 2001.
890:161(g). Introduction to GIS Modeling - $1 \mathbf{h r}$.
Descriptive and predictive GIS modeling techniques, spatial statistics, and map algebra. Application of GIS modeling techniques to environmental planning and resource management including modeling land use, watershed planning, historic vegetation patterns, and archaeological site inventories. Offered alternating summers, 2001.

890:165(g). Behavioral Ecology - 4 hrs.
Animal coloniality, courtship, territoriality, predator defense, habitat selection, foraging, mating systems, and parental care will be examined in the field in order to evaluate various ecological and evolutionary theories of animal behavior. Prerequisite: two courses in the biological sciences. Offered alternating summers, 2002.
890:166(g). Amphibians and Reptiles -4 hrs.
Ecology, behavior, and conservation biology of amphibians and reptiles with emphasis on their anatomy and morphology; temperature and water regulation; locomotion; life history; reproduction; population and community ecology; and conservation. Prerequisite: two courses in the biological sciences.

## 890:175(g). Soil Genesis and Landscape Relationships - 4 hrs.

Relationships between soil formation, geomorphology, and environment. Soil description, classification, geography, mapping, and interpretation for land use. Offered alternating summers, 2000.
890:193. Undergraduate Research $\mathbf{- 1} \mathbf{1 - 4} \mathbf{~ h r s .}$
Prerequisite: junior or senior standing; consent of instructor.
890:198. Undergraduate Independent Study - 1-4 hrs.
Prerequisite: junior or senior standing; consent of instructor.
890:215. Field Mycology - 4 hrs.
Identification and classification of the common fungi; techniques for identification, preservation, and culture practiced with members of the various fungi groups. Offered alternating summers, 2000.

## 890:217. Ecology and Systematics of Diatoms - $\mathbf{4}$ hrs.

Field and laboratory study of freshwater diatoms; techniques in collection, preparation, and identification of diatom samples; study of environmental factors affecting growth, distribution, taxonomy characters; project design and execution, including construction of reference and voucher collections and data organization and analysis.

## 890:240. Natural History Workshop - 1-3 hrs.

Offered as demand warrants. Graduate workshop on some aspect of the natural history of the Upper Midwest or on techniques for studying natural history. Prerequisite: consent of instructor.
890:241. Statistical Methods for Field Biologists $\mathbf{- 4} \mathbf{~ h r s}$.
Introduction to the design and implementation of ecological and environmental field studies and statistical analyses, interpretation, and presentation of field data. Fundamentals of experimental design, hypotheses testing with continuous and discrete data; simple and multilinear regression and correlation; introduction of analysis of variance; and data presentation. Individual and/or group projects will be used to collect field data. Offered alternating summers, 2001.
890:263. Conservation Biology - 4 hrs.
Population- and community-level examination of factors influencing the viability of plant and animal populations from both demographic and genetic perspectives; assessment of biodiversity; design and management of preserves. Offered alternating summers, 2000.
890:286. Studies in "_ "- 1-4 hrs.
Prerequisite: consent of instructor.
890:291. Graduate Internships - 1-5 hrs.
Placement with county conservation boards, camps, parks, schools, etc. for experience as interpreters, rangers, technicians, and teachers. Prerequisite: consent of instructor.
890:299. Research - 1-4 hrs.
Prerequisite: consent of instructor.

## 900 Social Science

900:020. Women, Men, and Society - 3 hrs.
Examination of key issues of gender. Attention to 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. 900:023. American Civilization - 3 hrs.
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.
900:041. 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). (Same as 450:041.)

## 900:045. American Racial and Ethnic Minorities - $\mathbf{3}$ hrs.

Survey of several American minorities, including Hispanics, Blacks, Asians, and Native Americans. Multi-disciplinary study of these groups with particular emphasis on geographic origins, linguistic traditions, and current modes of economic subsistence. Introduction to folkways and mores of each group. (Same as 450:045 and 980:045.)
$\mathbf{9 0 0 : 0 5 0}$. Introduction to Peace Studies - 1 hr.
Lectures and readings on the nature of personal and structural violence. Culture, political economy, and technology of war and peace.
900:051. Peace Studies II - 1 hr.
Study of current peace research with emphasis on proposed solutions to problems of war and violence in modern society.
900:080. Conflict and Social Reconstruction - 3 hrs .
Critical analysis of conflict in social relations. Employs systems framework to examine stress, alienation, reciprocity, social support and social reconstructions. Exploration of interpersonal, organizational and community conflict with emphasis on race, gender, and class. Includes simulations and small group activities.
900:085. The Nature of Social lssues - 3 hrs.
Comparison of biological, physiological, psychological, and cultural evidence used to explain behavior associated with gender, race, and class. Exploration of variety of social issues including human sexuality, sexual preference, reproduction, intelligence, criminal behavior, health, and mental health. Cross-cultural data will be used to explore nature of evidence.
900:090. Children and Youth: Issues and Controversies - 3 hrs.
Use of social scientific theoretical frameworks and data to examine causes, consequences, and policy implications of issues and controversies affecting children and youth.
900:135. Canadian Studies - $\mathbf{3}$ hrs.
Interdisciplinary survey of history, geography, languages, cultures, and politi$\mathrm{cal} / \mathrm{economic}$ systems of Canada, with attention to current issues surrounding the environment, native populations, immigration, separatism, and other topics. Inter-departmentally team taught. (Formerly 900:035.)
900:14S(g). Seminar in American Ethnic Studies - 3 hrs.
Concluding course for the American Ethnic Studies Minor, bringing together various components of the Minor's core curriculum and addressing theories and practices affecting study of ethnicity in U.S. Prerequisites: 450:045/ 900:045/980:045; 18 hours completed of the minor; senior standing or consent of Director of American Ethnic Studies program.
900:150. Senior Seminar in Women's Studies - 1 hr .
Students synthesize and extend knowledge gained from previous course work and apply it to their major in a professional portfolio. Prerequisites: a declared Women's Studies minor; senior standing; or consent of instructor.
$\mathbf{9 0 0 : 1 9 0}$. The Teaching of the Social Studles - $\mathbf{3}$ hrs.
Ordinarily should precede student teaching. Prerequisite: 12 hours in social science; senior standing. Corequisite: 900:191.
900:191. Field Experience: Teaching Social Studies - $1 \mathbf{h r}$.
Ordinarily precedes student teaching. Direct experiences in teaching 6-12 social studies; focus on lesson and unit planning, classroom management, and teaching methods. Bi-weekly seminar. Offered on credit/no credit basis only. Prerequisite: 12 hours in social science; formal application; senior standing; consent of instructor. Corequisite: 900:190.

## 900 Social Science/

## 920 Economics

900:195. Internship in Women's Studies - $\mathbf{1 - 3}$ hrs.
Experiential application of theory and scholarship. Responsibilities determined by faculty advisor, on-site supervisor, and student, according to organizational needs and career goals. Prerequisites: must minor in Women's Studies and have completed two or more core courses; junior standing or consent of instructor.
900:196. Honors Seminar - 3 hrs.
Seminar covering selected topics. Some sections may be restricted to CSBS Honors students. May be repeated for credit. Prerequisites: junior standing; consent of instructor.

## 900:197. Honors Thesis -3 hrs.

Development and implementation of approved thesis project in the social aciences. Some sections may be restricted to CSBS Honors students. Prerequisites: senior standing; consent of instructor.

## 900:199(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. Prerequisite: junior standing.
900:280. Social Science Seminar - 3 hrs.
May be repeated for a maximum of 6 hours. Prerequisite: consent of department.

## 900:297. Practicum.

## 900:299. Rescarch.

## 920 Economics

## 920:020. Introduction to Decision Techniques - 3 hrs.

Quantitative and qualitative aspects of problem solving and decision making. Structuring and basics of decision making, applications of probability, functional relationships, marginal analysis, linear programming. Emphasis on model formulation and interpretation of resulta. May not be used for credit on the Economics major or minor or the Social Science major or minor. Prerequisite: 800:072 or 800:092 or equivalent.

## 920:024. Introduction to Economics - 3 hrs.

Overview of economics, including how a market syatem functions and how national income, output, and employment are determined. Primary focus (though not exclusively) on U.S. economy. No credit for students who have credit or are concurrently enrolled in 920:053 or 920:054. May not be used for credit on major or minor.

## 920:053. Principles of Macro-Economics - 3 hrs.

Introduction to the economizing problem and economic institutions. National income determination, monetary and fiscal policy, global economic issues.
920:034. Principles of Micro-Economics - 3 hrs.
Study of producers and consumers in product and input markets. Applications of microeconomic theories to issues such as income distributions, the environment, agriculture, labor markets, government policies toward business, and others. Prerequisite: 920:053.

## 920:070. Business Statistics - 3 hrs .

Application and interpretation of probability and statistics as applied to business problems. Descriptive statistics, hypothesia testing, linear regression and correlation. May not be used for credit on the Economics major or minor or the Social Science major or minor. Prerequisite: 800:072 or 800:092 or equivalent.
920:103. Intermediate Macro-Economic Theery - 3 hrs.
Intermediate level macro-economics. Determinants of aggregate demand, national product and employment; macro-economics objectives and policies. Prerequisites: 920:053; 920:054.
920:104. Intermediate Micro-Economic Theory - 3 hrs.
Intermediate level micro-economics. Theory of consumer choice, of the business firm, and of resource allocation. Prerequisites: 920:053; 920:054.
920:113. Money and Banking - 3 hrs.
Money, commercial banking, the Federal Reserve System and monetary policy. Prerequisites: 920:053; 920:054.
920:116(g). Labor Economics - 3 hrs.
Application of economic analyais to behavior of employers and employees. Prerequisites: 920:053; 920:054; junior standing.
920:117(g). Public Finance -3 hrs.
Taxation and government expenditures; fiscal policy. Prerequisites: 920:053; 920:054; junior standing.

920:120(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 finite environment. Prerequisites: 920:053; 920:054; junior standing.
920:123(g). Environmantal Economics - 3 hrs .
Allocative efficiency, environmental quality as a public good, pollution as an economic problem, and estimating an economic value for environmental (nonmarket) goods. Prerequisites: 920:053; 920:054; junior standing.
920:125(g). Cost-Benefit Analysis - 3 hrs.
lmpact of public projects on resource allocation and social well being. Meaning and interpretation of Net Present Value (NPV). Problems encountered in quantifying various components of NPV and merits of alternative solutions. Prerequisites: 920:053; 920:054; junior standing.

## 920:134(g). The Japanere Economy - 3 hrs.

Examination of contribution of Japan's industry, financial system, public sector, agriculture, industrial relations, foreign trade and investment, and social and political institutions to operation and performance of Japanese economic system. Prerequisites: 920:053; 920:054; junior standing.

## 920:135(g). The Organization of American Industry - $\mathbf{3}$ hrs.

Structure, conduct and performance of firms, industries and market. Policies to maintain competition. Prerequisites: 920:053; 920:054; junior standing.

## 920:136(g). International Economics - 3 hrs.

International trade theory, trade strategies, economic unions, and factor movements. Prerequisites: 920:053; 920:054; junior standing.

## 920:137(g). Comparative Economic Systems - 3 hrs.

Examination of capitalistic and socialistic economies through the work of their defenders and critics. Prerequisites: 920:053 and 920:054, or consent of instructor, junior standing.
920:138(g). The Russian Economy in Transition - 3 hrs.
Operation and performance of Soviet economic system. Disintegration of Soviet Union and its economic aystem and development of Russian economy. Prerequisites: 920:053 and 920:054, or consent of instructor; junior standing. 920:143(g). Economic Development - 3 hrs.
Characteristics of developing nations, causes of underdevelopment, development theories, and development strategies. Prerequisites: 920:053; 920:054; junior standing.

## 920:148(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: 920:053 and 920:054, or consent of instructor; junior standing.
920:160(g). Managerial Economics - 3 hrs.
Application of economic theory and methods to business and administrative decision making. Prerequisites: 920:053; 920:054; junior standing.

## 920:168(g). Mathematical Economics - 3 hrs.

Application of mathematics to economics with an emphasis on matrices and introductory calculus. Prerequisites: 920:053 and 920:054, or consent of instructor; junior standing.

## 920:169(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 andlysis; use of statistical inference in econometric investigation with applications to classical works of economic topics. Prerequisites: 800:072; 920:053 and 920:054, or consent of instructor; junior standing.
920:170(g). History of Economic Thought - 3 hrs.
Development of economic theory from early Greeks to John Maynard Keynes. Prerequisites: 920:053; 920:054; junior standing.

## 920:175(g). International Financial Economics - 3 hrs.

International financial theories and analynis of balance of payments, alternative exchange rate regimes, and capital movements. Prerequisites: 920:053; 920:054; junior standing.
920:177. Internship in Communlty Economic Development - 1.3 hrs .
Practical experience in a business, industry, or government agency. May be repeated for maximum of 3 hours. Prerequisites: 920:053; 920:054; three 100level economics courses from UNI; junior standing; consent of department head.

## 920:181(g). Directed Research in Economics - 3 hrs.

Students demonstrate their grasp of economic theory, and their writing abilities. Prerequisites: 920:053; 920:054; 920:103; 920:104; senior standing; Economics majors.

## 920:260 Managerial Economics - $\mathbf{3}$ hrs.

Application of economic theory and methods to business and administrative decision making. Prerequisites: 920;053; 920:054; consent of MBA Director.
920:280. Toples in Economics - 1-3 hrs.
May be repeated for maximum of 6 hours. Anticipated typical credit of 1 hour. Selected topics in Economics. Prerequisite: Consent of MBA Director.
920:285. Individual Readings - 1-3 hrs.
Prerequisites: consent of MBA Director and Department Head. 920:299. Research. - 1-6 hrs.
Prerequisites: consent of MBA Director and Department Head.

## 940 Political Science

940:014. Introduction to American Politics $\mathbf{- 3} \mathbf{~ h r s .}$
Processes and functions of American government in relation to concepts of American democracy and to practices of other governments.
940:015. American Government in a Comparative Perspective - 3 hrs.
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.
940:020. Contemporary Political Problems - $\mathbf{3}$ hrs.
Analyzis of selected contemporary political issues. Focus may be on local, state, national, or international level.
940:026. World Polltics - 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. Not open to students who have credit in 940:124.
940:040. Comparative Polltics -3 hrs .
Examination of theory, methods, and problems of comparative politics with emphasis on cross-regional analysis. Use of case studies to look at such issues as political culture, parties, participation, dictatorship and democracy, economic policies and class, racial, ethnic or religious conflict.

## 940:110. Methods of Political Anslysls - 3 hrs.

Role of scientific inquiry and research design in qualitative and quantitative research in political science and public administration.
940:111. Introduction to Quantitative Methods in Political Science - 3 hrs.
Introduction to basic statistical methods appropriate to data analysis in political science and public administration.

## $940: 112(\mathrm{~g})$, Campaigns and Elections -3 hrs.

Systematic examination of structure and functions of modern electoral campaigns for national, state, and local offices. Prerequisite: junior standing.
$940: 118(\mathrm{~g})$. International Relations Theery - 3 hrs .
Analyais of major theoretical traditions and concepts in international relations. Emphasis on analytical arguments of Realism, Liberalism, and Marxism, and the Levels of Analysis approach. Prerequisite: junior standing.
940:119(g). International Political Economy - 3 hrs.
Analysis of interaction between pursuit of power and pursuit of wealth in the international system. Emphasis on changes in rules for monetary and trade relations since 1945. Prerequisites: $940: 026$ or $940: 124$; junior standing.

## 940:120(g). Bureaucratic Politics -3 hrs .

Relationship of public agencies with their three masters: the Congress, the President, and the Judiciary: role and impact of public agencies in public policy process. Prerequisites: 940:014; junior standing.
940:121(g). Terrorism - 3 hrs.
Examination of terrorism as a political phenomenon. Focus on terrorism-related theme with examination of both theoretical and policy issues related to the history, psychology, and motives of terrorism using cases from around the world. Prerequisite: junior standing.
940:122(g). Demecracy and Democratization - 3 hrs.
Analyais of possible causes of democratization, various paths to democracy, and relationship between democratization paths and types of democracy. Prerequisite: junior standing.

## 940:123(g). Nationalism -3 hrs.

Analysis of causes, forms, and consequences of nationalist movements. Consideration of experiences of nation-states and multi-national states. Evaluation of major theoretical approaches to study of nationalist movements and application to several specific cases. Prerequisite: junior standing.
940:124. International Rolatlons - 3 hrs.
Survey of various approaches to international relations with special emphasis on application to historical and contemporary cases. Not open to students who have credit in 940:026. Prerequisite: sophomore standing or consent of instructor. 940:125(g). North-South Relations - 3 hrs.
Analysis of political, social, and economic disparities and mutual interdependence between developing and developed nations; examination of need for a new international economic order and issues of energy, food, raw materials, population, and transfer of technology. Prerequisite: junior standing.
940:127(g). United States Forelgn Policy - 3 hrs.
Historical and theoretical examination of the individual, domestic, and systemic factors which affect formulation of United States foreign policy. Prerequisite: junior standing.

## 940:129(g). American Political Thought - 3 hrs .

Moral and philosophic foundations of American democracy; close reading of key texts in American constitutional history; attempt to apply the teachings of these texts to the question, "For what does the American regime stand?" Prerequisite: junior standing.
240:130(g). Women and Polltics in Comparative Perspective -3 hrs .
Examination of changing political roles of women and gender-based movements with special attention to how gender interacts with racial, clase, and religious identities in shaping political attitudes, activities, and organizations. Prerequisite: junior standing.

## 940:131. Amertcan State Polltics - 3 hrs .

Analysis of organization, functions and operation of state and local governments. Prerequisite: sophomore standing or consent of instructor.
940:132. Community Political Systems - 3 hrs .
Introduction to structure, functions, and policies of American local government in context of economic, social, and intergovernmental forces. Prerequisite: sophomore standing or consent of instructor.
940:134(g). Legislative Politics - 3 hrs.
Theoretical and empirical examination of institutional working of Congress and behavior of legislators. Prerequisite: junior standing.
940:135(g). Western European Democracies - 3 hrs .
Political institutions, processes, and policies of Western European Democracies, emphasis on United Kingdom, France, Germany, and Italy. Development and prospects of European Community. Prerequisite: junior standing.
240:136(g). Administrative Law - 3 hrs.
Judicially enforceable requirements upon administrative agencies which affect private interests by making rules and orders, adjudicating cases, investigating, prosecuting, publicizing, and advising. Legislative and executive controls over the agencies. Prerequisite: junior atanding.
$940: 138(\mathrm{~g})$. Polltics of Pollicy Reform - 3 hrs .
Examination of people, politics, and processes that promote or inhibit major policy change in the United States. Prerequisites: 940:014 or 940:015; junior standing.

## $940: 141(\mathrm{~g})$. Constitutional Law - 3 hrs .

Analysis of U.S. Supreme Court decisions and changes in court personnel and operations over time. Emphasis on federalism, the separation of powers, civil liberties, and civil rights. Prerequisite: junior standing.

## 940:142(g). Problems in Juvenile and Family Law - 3 hrs.

Aspects of juvenile and family law; how legislature and courts have developed juvenile and family law, including marriage and divorce, adoption, and competency of minors. Prerequisite: junior standing.

## 940:143(g). Intematlonal Law - 3 hrs .

Survey of international law from its development to contemporary issues. Prerequisite: junior standing.
940:145(g). intemmational Organizations - 3 hrs.
Description of international governmental organizations and international nongovermmental organizations and analysis of their role in international politics. Prerequisite: junior standing.
940:146. Law and the Courts I- 3 hrs.
Study of courts in Amerita today with emphasis on trial courts and their impact on the community.

940:147. Law and the Courts II - 3 hrs.
Study of judicial law making, private influences on court-expanded rights, and law schiool methods.
940:148. Introduction to Public Administration - $\mathbf{3}$ hrs.
Role of bureaucracy in policy making and implementation in a representative government. Theories, concepts and selected case studies in public administration. Prerequisite: sophomore standing or consent of instructor.
940:149(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.

## 940:150(g). Political Opinion and Voting Behavior - 3 hrs.

Theoretical and empirical analyses of public opinion, political specialization, political attitudes and behavior, with emphasis on voting behavior. Prerequisite: junior standing.
940:151(g). Modern Presidency - 3 hrs.
Systematic examination of structure, functions, and powers of American presidency as they have evolved from the founding to present. Prerequisite: junior standing.
940:153(g). Public Organizations - 3 hrs.
Theories and models of internal dynamics of public organizations and their role in the political milieu; characteristics and operation of American public organizations. Prerequisites: 940:014 or 940:148; junior standing.

## 940:154. Ethics in Public Administration - $\mathbf{3}$ hrs.

Current ethical issues in public administration; analysis of ethics in theory as applied to public sector. Applications of ethical codes to administrative practice. Prerequisite: 940:148.
940:155(g). Environmental Policy Making - 3 hrs.
Factors influencing policies in U.S. and selected foreign countries and international institutions. Prerequisite: junior standing.
940:156(g). Issues in Political Thought - 3 hrs.
Examination and analysis of one or more significant issues in political thought. Prerequisite: junior standing.
940:157(g). Politics and Sexuality - 3 hrs.
Political implications of human sexuality; analysis of relation between the natural community of friends/loved ones and the constructed community of citizens. Atterupted application of timeless insights in classic texts to current topics of debate. Prerequisite: junior standing.

## 940:158(g). Morality and Politics - $\mathbf{3}$ hrs.

In-depth analyais of one or more philosophers on the following questions: Is there a mutually dependent and harmonious relation between morality and political prosperity? If so, how far does that harmony reach? Prerequisite: junior standing.
940:160(g), Classical Political Philosophy - 3 hrs.
Perennial issues of political philosophy as presented by the major thinkers of classical antiquity with emphasis on competing views of human nature and their political implications. Prerequisite: junior standing.
940:161(g). Modern Political Philosophy - 3 hrs.
Perennial issues of political philosophy beginning with Machiavelli to present. Emphasis on philosophical foundations of this century's ideologies. Prerequisite: junior standing.
940:162(g). Polltics of East Asio - 3 hrs.
Comparative analysis of major East Asian countries, state and nation-building processes, political institutions, processes and policies, emphasis on China and Japan. Prerequisite: junior standing.
940:164. Russian and East European Polfics - $\mathbf{3}$ hrs.
Analysis of regimes and regime changes in Russia and Eastern Europe. Examination of institutions, contemporary issues, and processes in comparative context. Prerequisite: junior standing.
940:165(g). African Politics - 3 hrs.
Examination of African politics from a political economy perspective. Prerequisite: junior standing.
940:166(g). Political Parties and Interest Groups - 3 hrs.
Rise of interest groups and decline of parties in American political system; role of interest groups in policy process; organization and maintenance of political parties and interest groups. Prerequisites: 940:014; junior standing.

## 940:167(g). Latin American Politics - 3 hrs.

Factors influencing political and economic developntent, emphasis on social classes, political regimes, role of state, and world capitalist economy. Prerequisite: junior standing.

240:168(g). Politics of South Asia - 3 hrs.
Parliamentary institutions and politics political movements and independencef the parties; politics of langusge, caste, and tribe; democracy and economic change; goals and styles of political leadership; religion and politics; problems of nation building; and current trends in countries of this aree. Prerequisite: juniol standing.
240:171(g). Urban Development and Administration - 3 hrs.
Theoretical perspectives on the processes of urban development and problems of urban administration and policy making. Prerequisites: 940:014; 940:132; juniod standing.

## 940:172(g). Public Budgeting - 3 hrs.

Historical development of current budgeting practices; politics of budgetar, process at federal, state, and local level; current methods of budgeting for publif agencies, focusing on integration of budgeting into program planning. Prerequisites: $940: 014 ; 940: 148 ;$ junior standing.

## 240:173(g). The Public Policy Process - 3 hrs.

Theories and models of policy process in the United States, including agendasetting, formulation, adoption, implementation and evaluation. Application of theories and models to case studies of major policy issues. Prerequisites 940:014; 940:148; junior standing.

## 940:174(g). Public Personnel Administration - 3 hrs.

Development of current government personnel practices; contemporary issues in personnel administration; techniques of job analysis; recruitment and select tion of employees; problems of supervision and evaluation. Prerequisites; 940:014; 940:148; junior standing.
940:176(g). Research Methods in Public Administration - 3 hrs:
Applications of statistical techniques and computer analysis techniques to prob-1 lems of public management. Prerequisite: junior standing.
240:181. Internship in Polltics -4-8 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: 940:110; 15 hours of Political Science; Political Science or Public Administration major; junior standing or consent of department.
940:188. Seminar in Polkical Science - 3 hrs.
Undergraduate seminar covering selected advanced topics in political science. Prerequisites: Political Science Liberal Arts or Teaching major; junior standingr completion of a minimum of 20 hours in major.
940:189(g). Readings in Political Science - 1-3 hrs.
May be repeated only with consent of department. Prerequisites: 12 hours in Political Science; junior standings consent of department.

## 240:198. Independent Study.

940:275. Quanthative Methods for Polkics and Policy -3 hrs.
Statistical methods appropriate to study of political science and public policy, including hypothesis testing, nominal and ordinal scale measures of association, bivariate regression/correlation, and multiple regression. Prerequisite: 940:111, 980:080, or consent of instructor.
940:279. 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.
940:285. Individual Rendlinge - $\mathbf{1 - 3} \mathbf{~ h r s . ~}$
May be repeated.
940:289. Sominar in American Politics - 3 hrs.
940:289. Seminar in Comparative Politics -3 hrs .
940:289. Seminar in intemational Politics - 3 hrs.
Prerequisite: 940:124 or consent of instructor.
940:289. Seminar in Political Thought -3 hrs.
940:292. Approaches to Political Inquiry - 3 hrs .
Competing approaches, conceptual frameworks, models and theories used in research and literature of the discipline.
940:299. Research.

## 950 Public Policy

950:205. Research Seminar in Public Pollcy -1 hr .
Seminar on questions of public policy analysis. Topics vary. May be repeated. 950:208. Applied Research and Bibliography in Public Policy - 3 hrs.
Exploration of established research and available sources in participants' focus areas in public policy. Successful completion satisfies program writing require-
ment. Prerequisites: 920:117; 940:153; 940:173; 940:275; 950:210 or 920:169;
960:225.
950:210. Quantitative Techniques for Policy Research - $\mathbf{3}$ hrs.
Application of basic and advanced statistical techniques to problems of policy analysis. Prerequisite: 980:080 or equivalent.
950:260. Policy Analysis: Methods and Approaches - $\mathbf{3}$ hrs.
Research methods and approaches for analyzing and evaluating public policy choices and impacts. Understanding the context and purposes of policy analysis. Defining policy research questions and developing research designs. Selecting and applying appropriate research methods to policy problems. Prerequisite: enrollment requires admission to the Graduate Program in Public Policy, or consent of Director of Graduate Program in Public Policy.
$\mathbf{9 5 0 : 2 8 1}$. Internship in Public Pollicy - 4 hrs.
Field experience for students enrolled in Master of Public Policy degree program. Students may be given credit for extensive career experience at the discretion of the Program Director. Prerequisites: 940:173; 940:275; 950:205; 950:210.
$\mathbf{9 5 0 : 2 8 5}$. Readings in Public Policy - $\mathbf{1 - 3} \mathbf{~ h r s . ~}$
Registration requires written consent of Program Director.

## 960 History

960:010. Introduction to the Study of History - 3 hrs.
Introduction to nature and use of history, to historiography, and to basic methods of historical research. Required of all history majors and must be taken immediately after major is declared.

## 960:014. 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 end of Reconstruction.
960:015. United States History since 1877 - 3 hrs.
End of Reconstruction period to present, including economic, diplomatic, intellectual, political, and social factors.

## 960:101(g). History of Ancient Greece - 3 hrs .

Archaeology of the Aegean and the Minoan-Mycenaean civilization; Homeric period, classical civilization of Greece to Alexander the Great and the Hellenistic Age; advent of the Romans. Prerequisite: junior standing.
960:102(g). History of Technology in America - 3 hrs.
Examination of the nature, impact and consequences of American technology both at work and at home, in the city and in the country. Prerequisite: junior standing.

## 960:103(g). History of Ancient Rome - 3 hrs.

Roman Republic, expansion of Roman rule, Roman Empire, decline and fall of the empire in 5th century A.D. Comparison of the Romans as people with modem Americans. Prerequisite: junior standing.
960:104(g). Women and Work: An Historical Perspective -3 hrs.
Examination of changing nature of women's work during pre-industrial period, the Industrial Revolution, and 20th century, primarily in Europe and United States. Emphasis on impact of technological change, sexual division of labor, and women's participation in labor organizations and strikes. Prerequisite: junior standing.

## 960:106. Applying History: The Public Alternative - $\mathbf{3}$ hrs.

Exploration of employment possibilities other than teaching for those with degrees in history. Examination of skills required to pursue a career in public history and variety of issues that public historians confront.
960:116(g). Recent United States History - 3 hrs.
History of the American people since 1945 with emphasis on domestic affairs. Prerequisite: junior standing.
960:122(g). African-American History - 3 hrs.
History of black Americans from African background into 1980's, with emphasis on period since end of slavery. Prerequisite: junior standing.
$\mathbf{9 6 0 : 1 2 4 ( g ) . ~ T h e ~ C i t y ~ i n ~ U n i t e d ~ S t a t e s ~ H i s t o r y ~ - ~} 3$ hrs.
Introduction to urban history; functions, shapes, and dynamics of the city in the American experience from 17th century to present with emphasis on metropolis of the past half century. Prerequisite: junior standing.

## 960:125(g). Introduction to Museum Studies - 3 hrs.

Exploration of history, public mission, working environment, and ethical issues of museums. Discussion of practical skills and theoretical issues of museum studies, exposing students to broad range of museum types and career opportunities. Prerequisite; junior standing. (Same as 990:125g.)

## 960:127(g). Pre-Modem Japan - 3 hrs.

Prehistory until early modern period (about 1800). Overview of Japan's roots, surveys the early Japanese state, and analyzes the processes of decentralization and reunification. Prerequisite: junior standing.

## 960:128(g). Modern Japan - 3 hrs.

Description of first non-Western nation to become a modern economic superpower. Traces development in political, social, economic, and cultural aspects from 1800 to present. Prerequisite: junior standing.
$960: 130(\mathrm{~g})$. History of fowa - 3 hws .
Social, political, and economic developments in lowa from prehistoric times to present. Prerequisite: junior standing.

## 960:131(g). U.S. History from 1919 to 1945 - 3 hrs.

U.S. history from end of World War I to end of World War II, emphasizing social tensions and economic developments of the 1920's, Great Depression and New Deal of 1930 's, and wartime diplomacy and mobilization of the home front in the 1940's. Prerequisite: junior standing.
960:132(g). Internship in Historical Studies - $\mathbf{1 - 3}$ hrs.
Individualized study and experience in public history settings. Work projects defined by instructor, site supervisor, and student. Attendance at weekly forum mandatory, and term paper reflective of the experience is required. Prerequisires: Iowa History course (recommended); 960:106; junior standing; consent of instructor.

## 960:134(g). United States Economic History - 3 hrs.

Efforts of the people to raise standard of living, their means of livelihood, and development of national economy. Exploration of theory of economic growth. Prerequisite: junior standing.
960:136(g). American Colonial History - 3 hrs.
17th- and 18th-century America; development of colonial societies in the New World and American Revolution era. Prerequisite: junior standing.

## 960:137(g). From Jefferson to Jackson - 3 hrs.

Political, economic, and social development of United States in years between American Revolution and end of Jacksonian Era. Prerequisite: junior standings.
960:138(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. 960:139(g). CVill War and Reconstruction - 3 hrs.
Causes of the Civil War, nature of the conflict, and short-range and long-range consequences of the war. Prerequisite: junior standing.
$960: 140(\mathrm{~g})$. History of the West - 3 hrs .
Westward movement of the people, from the Atlantic to Pacific; impact of over two centuries of frontier experience on the course of the nation's history and in shaping of "American" character. Prerequisite: junior standing.
$960: 141(\mathrm{~g})$. The South in United States History - 3 hrs.
Traces the southern experience from colonization and settlement through the Civil War, Reconstruction, and late 19th- and 20th- century racial and political adjustments; emphasis on post-Reconstruction period and role of blacks in shaping southern society. Prerequisite: junior standing.
960:142(g). United Seates Constitutional History - 3 hus.
Relates individual rights, political-socio-economic issues, and rivalry among the Presidency-Congress-Supreme Court to development of U.S. Constitution. Prerequisite: junior standing.

## 960:144(g). History of American Thought - 3 hrs.

Historical examination of principal idea-systems which shaped the intellectual profile of American civilization. Prerequisite: junior standing.
960:145(g). Religion in America - 3 hrs .
Investigation of religious movements and beliefs from colonial times to present. 640:024 or 650:021 recommended to precede this course. Prerequisite: junior standing. (Same as $640: 117 \mathrm{~g}$.)
$\mathbf{9 6 0 : 1 4 6 ( g )}$. History of Women In the United States -3 hrs.
Survey of social, cultural, and economic roles of women in the United States from founding to present, with some comparative analysis of women's roles in other areas of the world. Prerequisite: junior standing.

## 960:147(g). Foundations of Modern America: The United States, 1877-

 1919-3 hrs.Description and analysis of dramatic social, cultural, economic, and political changes occurring in the U.S. between close of Reconstruction and the end of World War I. Prerequisite: junior standing.
960:150(g). Society and Culture in the United States - 3 hrs.
Description and analysis of the development of and changes in community, family, social stratification, nature of reform, morality, uses of leisure time, and attitudes toward science and religion in 19th and 20th centuries. Prerequisite: junior standing.

## 960:151(g). The Anclent Near East - 3 hrs.

The artistic, literary, political, religious, and social accomplishments of Near Eastern people of ancient times. Prerequisite: junior standing.
960:152(g). Medieval Civilization - 3 hrs.
Social, economic, political, and cultural features seen as foundations of the modern period. From Fall of Rome to 15th century. Prerequisite: junior standing.
$960: 153(\mathrm{~g})$. The Renaissance and Reformation - 3 hrs .
Intellectual, artistic, economic, and political developments of the Italian and Northern Renaissance, culminating in an examination of the 16th-century Reformation. Prerequisite: junior standing.
960:154(g). Military History from Napoleon to the Present - 3 hrs.
Study of causes and conduct of war and impact of war on society, with emphasis on 20th century. Prerequisite: junior standing.
960:155(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.
$\mathbf{9 6 0 : 1 5 6 ( g ) . ~ H i s t o r y ~ o f ~ E u r o p e a n ~ P o p u l a r ~ C u l t u r e ~ - ~} \mathbf{3} \mathbf{~ h r s . ~}$
Examination of various aspects of everyday life in European history, including work, leisure, diet, housing, health, sanitation, role of women, status of children, family life, popular festivals, fashions, fads, sports, and games. Prerequisite: junior standing.
960:157(g). European Diplomacy from the Congress of Vienna to the
Present - 3 hrs.
European diplomatic history from 1815 to present, with emphasis on 20th century. Prerequisite: junior standing.

## 960:158(g). Age of Absolutism and the Enlightenment - 3 hrs .

History of emerging nations of Europe with emphasis on Age of Absolutism, Louis XIV, and the Enlightenment. Prerequisite: junior standing.
$960: 160(\mathrm{~g})$. Europe from World War I to the Present - 3 hrs .
Study of impact of World War I, rise of Communism and Fascism, impact of World War II, and European renaissance since 1945. Prerequisite: junior standing.
$\mathbf{9 6 0 : 1 6 1 ( g )}$. Women in Modern European History - 3 hrs.
History of all facets of women's experience (beginning about 1700) emphasizing their economic roles, position in the family, sexuality, and political struggles. Exploration of sources of women's oppression and theories of liberation. Prerequisite: junior standing.
960:162(g). European Thought since the Enlightenment - 3 hrs .
Selected ideas and men in 19th and 20th centuries. Prerequisite: junior standing. 960:163(g). History of the Jewish People - 3 hrs.
Broad sweep of Jewish history from its genesis to present day, focusing on interrelationship of Jewish civilization and non-Jewish cultures. Prerequisite: junior standing.
960:164(g). English History to 1688 - 3 hrs.
England and the British Isles: Celtic and Roman times, England in the Middle Ages, 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.

## 960:165(g). English History since 1688-3 hrs.

English political, economic, social, and intellectual history with emphasis on the Victorians and 20th century; British Empire and Commonwealth. Prerequisite: junior standing.
960:166(g). United States Legal History - 3 hrs.
Historical examination of selected issues in relationships between law and society in American history. Topics 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.

960:167(g). The American Legal Profession - 3 hrs.
Historical examination of origins, development and present status of Americar! legal profession. Topics include legal education, legal ethics, formation and development of $A B A$, and legal profession and social reform. Prerequisitc junior standing.

## 960:169(g). History of Imperial Russia - 3 hrs.

Political, social, economic, and cultural aspects of Russia with emphasis on 19th century. Prerequisite: junior standing.
960:170(g). History of Soviet Russia - 3 hrs.
Political, social, economic, and cultural developments of Russia in 20th centuryl emphasis on ideology. Prerequisite: junior standing.
960:171 (g). History of Germany to 1648 - 3 hrs.
Unified German Empire and political, social, and religious forces which under-1 mined it from Middle Ages to end of Thirty Years War. Prerequisite: junion standing.

## 960:172(g). History of Germany Since 1648-3 hrs.

Political, social, economic, and cultural developments of Germany since the Peace of Westphalia, with emphasis on 19th and 20th centuries. Prerequisitel junior standing.
960:173(g). Russia to Peter I- 3 hrs.
Survey of Russian political, social, economic, and cultural history from its origins to Peter the Great. Prerequisite: junior standing.

## 960:174(g). History of Modern France -3 hrs.

Survey of cultural, economic and political history of France in 19th and 20th centuries. Prerequisite: junior standing.

## 960:175(g). Modern African History - 3 hrs.

Survey of 19 th- and 20 th-century sub-Saharan Africa including economic and social development, emergence of modern nationalist movements, and characterd of the European contact and its interaction with traditional African politics 4 Prerequisite: junior standing.
960:176(g). Colonial Latin American History - 3 hrs.
Discovery, exploration, conquest and development of Colonial Latin America. Prerequisite: junior standing.
960:177(g). History of the Caribbean - 3 hrs.
Major Caribbean countries, the United States in the Caribbean, with emphasis on the 20th century. Prerequisite: junior standing.
$960: 178(\mathrm{~g})$. Modern Middle East History - 3 hrs .
Middle East history from 1789 to present including Islamic roots, the rise of nationalism in various states, Arab attempts at unity, and the Arab-Israeli conllict. Prerequisite: junior standing.
960:180(g). Latin American History - 3 hrs.
Modern development of Latin American States and their relations to the United States. Prerequisite: junior standing.

## 960:181(g). Pre-Modern South Asla - 3 hrs.

Culture and institutions within the Indian subcontinent from antiquity through Hindu and Islamic periods. Prerequisite: junior standing.

## 960:182(g). Modern South Asia - 3 hrs.

Influence of the West on cultures and institutions within the Indian subcontinent; response to changing conditions in the Anglo-Indian Empire; rise of movements leading to establishment of India and Pakistan. Prerequisite: junior standing.

## 960:183(g). Pre-Modern Chinese History - 3 hrs.

Cultural and institutional developments in China from earliest times to ca. 1800 A.D. Prerequisite: junior standing.

## 960:187(g). Modern Chinese History $\mathbf{3} \mathbf{~ h r s . ~}$

Political, social, economic, and intellectual developments in China with special emphasis on period from the Revolution of 1911 to present. Prerequisite: junior standing.

## 960:189. 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.

## 960:192. Junior-Senior Seminar - 3 hrs.

Topics may vary. May be repeated on different topics. For history majors; nonmajors may enroll with consent of instructor. Prerequisite: junior standing.

## 960:193. Historians and Philosophy of History - $\mathbf{3}$ hrs.

Study of methodology and philosophy of history, illustrated by history of historical writing. Prerequisite: junior standing.
960:198. Independent Study.
960:225. History and U.S. Public Policy - 3 hrs.
Use of history in policy makings historical development of public policy in a specific area.
960:280. Seminar in History - 3 hrs.
Offered in specially designed areas as indicated in Schedule of Classes.
960:285. Individual Readings - 1-3 hrs.
May be repeated. Prerequisite: consent of department head.
960:289. Seminar In United States Historiography - 3 hrs.
Seminar on major schools of interpretation of the American past, and specific examination of historiographical development of selected topics in American history.
$960: 290$. Historical Methods - 3 hrs.
Investigation of problems confronting the historian and analysis of methods and techniques employed.
960:297. Practicum - 2 hrs.
96A:299. Research - 3 hrs.
Experience in use of bibliographical sources for scholarly research. Students will prepare literature reviews, abstracts, and outlines of their theses. Prerequisite: 960:290.
96B:299. Research - 3 hrs.
Thesis research.

## 970 Geography

970:010. 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.

## 970:026. Physical Geography - $\mathbf{3 - 4}$ hrs.

Explanation of patterns of solar energy receipt, atmospheric pressure, winds, and precipitation around the Earth. Emphasis on how solar energy, water, and crustal movements interact to determine characteristics of natural environments on Earth. Prerequisite: student must have satisfied University entrance requirements in English and Mathematics.

## 970:028. Environmental Change - 3 hrs.

Survey of global environmental changes during the past 40,000 years. Emphasis on evidence, record, and causes of climate changes. Human impacts on climate and landscape.
970:040. World Geography - 3 hrs.
Reasons for and consequences of variations over surface of the earth of cultural, economic, physical, and other attributes of places.
970:061. Maps and Map Interpretation - 3 hrs.
Survey of various types of maps available from perspective of map maker and user. Emphasis on reading, analysis, and interpretation of information on maps. 970:100. Envirommental Geography -3 hrs.
Study of geographic dimension of human-environmental interaction. Historical perspectives on Earth's environmental problems, the place of humankind in ecological systems, and issues of sustainable development. Prerequisite: 970:010 or 970:026 or 970:028 or 970:040 or consent of instructor.
970:101. Economic Geography - 3 hrs.
Analysis of changing spatial structure of the economy and inter-relationships between geography and economies within a global perspective.

## 970:104, North American Chies - 3 hrs.

Principles of urban geography, including urban growth and change, structure and dynamics, and analysis and planning in North American cities.

## 970:111(g). Cultural Geography - 3 hrs.

Examination and analysis of impact of cultural groups on the earth, and resulting human-created landscapes. Prerequisites: 970:010 or 970:026 or 970:040; junior standing.
970:114(g). Political Geography - 3 hrs.
Geographic factors in origin, development, behavior, and interaction of states. Prerequisite: junior standing.
970:116(g). Geopoltics - 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; junior standing.

## 970:117(g). Transportation Geography -3 hrs.

Study of transportation, its influence on the landscape, relationships with spatial organization. Examination of selected analytical models of transport systems in urban, regional, and global settings, including transport problems and policies. Prerequisites: 970:010 or 970:040 or 970:101; junior standing.
970:119(g). Population Geography - 3 hrs.
Patterns, processes, and models of population structure, change, distribution, and movement. Relationships with complex spatial mosaic of socio-economic and environmental systems. Prerequisite: junior standing.
970:121(g). Locational Analysis for Business - 3 hrs.
Practical and theoretical use of geographic models and concepts in business. Locational analysis, site selection, market area analysis, and real estate evaluation. Prerequisite: junior standing.
970:126(g). Geography of Solls - 3 hrs.
Study of soils as result of inter-relationships among climates, ecosystems, and landscapes of the world. Soil formation, distribution, properties, and classification and applications of soil geography to other disciplines. Lecture, 2 periods; lab/field trips, 2 periods. Prerequisites: 870:031 or 970:026; junior standing. 970:127(g). Climatology - 3 hrs.
Fundamentals of physical and dynamic climatology. Application of fundamentals to classification and mapping of global distribution of climatic types, and reconstruction of past climates. Prerequisite: junior standing.
970:128(g). Enviconmental Issues and Regional Public Pollcy $\mathbf{- 2 - 3} \mathbf{h r s}$.
Dynamic interactions of the different Earth systems (aimosphere, ocean, geosphere) and their relations to current environmental issues in context of broad public policy debate. Focus often on range of issues within single region. Prerequisite: junior standing.
970:129(g). Rivers - 3 hrs.
Precipitation variability, floods, river channel morphology, floodplsins and terraces, hillslope erosion, and effects of climatic changes and land use on rivers. Lecture, 2 periods; lab/field trips, 2 periods. Prerequisite: junior standing.
970:131(g). Quaternary Environments and Landforms - 3 hrs.
Examination of characteristics of "Ice Age" from 5 million years ago to present. Considers evidence for environmental change over this period from chemical, biologic, lithologic, geomorphologic, and archaeological data and the analytical methods used to discern this change. Prerequisite: junior standing.
970:137(g). Natural Hazards and Disasters - 3 hrs.
Examination of causes, physical processes, and geographic distribution of natural hazards. Discussion of prodiction methods and social impact of such disasters. Prerequisite: junior standing
970:141(g). Regional Geography - 3 hrs.
Study of geography of selected region including evolution and dynamics of its cultural, social, economic, political, and environmental dimensions. May be repeated for credit for different regions. Prerequisite: junior standing.
970:142(g). Geography of North America - 3 hrs.
Regional geography of North America including nature of physical landscape and environment, historical and current patterns of settlement, social and cultural syatems, demographic structures, and economic variations. Prerequisites: 970:010 or 970:040; junior standing.
970:144. Naturai Regions of North America - 3 hrs.
Description and explanation of various landforms of North America. Focus on structures and surface processes that form distinct physical regions of North America (e.g., Rocky Mountains), and kinds of landforms that make each region unique.
970:151(g). Historical Geography - 3 hrs.
Examination of geographic development of selected region or of significance of geographic factors in historical development of selected topic. May be repeated for credit for different regions or topics. Prerequisite: junior standing.
970:160(g). Spatial Date Analysis - 3 hrs .
Analysis and interpretation of spatial point processes, area, geostatistical and spatial interaction data. Applications to geographic data in real estate, biology, environmental and agricultural sciences using S-Plus software. Prerequisites: 800:072 or 980;080; junior standing. (Same as $800: 171 \mathrm{~g}$.)
970:163(g). Aerial Photo Interpretation and Phosogrammetry - 3 hrs. Emphasis on interpretation of physical and cultural phenomena on the earth's surface using imagery obtained through aerial photography. Basic principles of photogrammetry and introduction to aon-photographic sensors. Lecture, 2 periods; lab, 2 periods. Prerequisite: junior standing.

## 970 Geography/980 Sociology

970:164(g). Geographic Information Systems I - 3 hrs..
Fundamental concepts and operations of Geographic Information Systems with applications. Lectures are supplemented by computer-based projects. Lecture, 2 periods; lab 2 periods. Prerequisite: junior standing.
970:165(g). Thematic Cartography - 3 hrs.
Application of cartographic principles and techniques in compiling thematic maps. Emphasis on cartographic production; essentials of computer mapping and map reproduction. Lecture, 2 periods; lab, 2 periods. Prerequisites: 970:061 or consent of instructor; junior standing.

## 970:168(g). Regional Analysis and Planning - 3 hrs.

Introduction to processes, methods, and techniques of regional analysis and planning. Planning seen as political and technical process. Prerequisites: a statistics course, junior standing.

## 970:171(g). Issues In the Teaching of Geography - 3 hrs.

Strategies and methods for teaching geography and incorporating geographic perspective in social studies courses. Prerequisite: junior standing.
970:173(g). Remote Sensing of the Environment - 3 hrs .
Examination of physical basis of Remote Sensing and various sensing systems available for monitoring, mapping measuring, and identifying phenomena on the earth's surface. Emphasis on non-photographic systems operating within the electromagnetic continuum. Various modes of multispectral scanning. Lecture, 2 periods; lab, 2 periods. Prerequisite: junior standing.

## 970:174(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. Lecture, 2 periods; lab, 2 periods. Prerequisites: 970:164 or consent of instructor; junior standing.
970:175(g). Global Positioning System Field Survey Methods - 3 hrs.
Utilization of global positioning system (GPS) to collect, process, and analyze geographic data. GPS theory and techniques including field survey experiences. Applications within an integrated geographic information system (GIS) framework. Prerequisite: junior standing
970:177. Internship in Geography - 1-3 hrs.
Practical experience in business, industry, or a government agency. May be repeated for maximum of 3 hours credit. Offered on credit/no credit basis only. Prerequisites: junior standing; 15 hours of geography at UNI; GPA of 2.50 ; consent of department.
970:180. Senior Seminar in Geography - 3 hrs.
Examination of specific topics through application of geographic principles and anslysis. Capstone seminar. Research paper required. Prerequisite: 21 hours of geography.

## 970:189. Readings in Geography - 1.3 hrs .

Maximum of 3 hours can be applied on geography major. Prerequisite: consent of department head.
970:190(g). Field Studies in Geography - 2-3 hrs.
Off-campus experience with preparatory and follow-up classroom study. Specific area to be studied, credit hours, and prerequisites listed in Schedule of Classes. May be repeated in different geographical areas for maximum of 6 hours. Prerequisite: junior standing.
970:193. Research Experience in Geography - 1-3 hrs.
Conducting of supervised research or acholarly project. May be repeated for maximum of 6 hours. Prerequisites: 15 hours of geography; consent of instructor.
970:202. Graduate Colloquium - 1 hr.
Weekly presentations by a faculty member, visitor, or student. May be repeated for maximum of 2 hours.
970:277. 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 on credit/no credit basis only. Prerequisites: minimum of 9 hours of geography at UNI; GPA of 3.00 ; consent of department.
970:280. 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.
970:285. Readings in Geography - 1-3 hrs.
Prerequisite: consent of department head.
970:288. Research and Blbliography -2 hrs.
Discussion of various methods of geographic research, and use of bibliographic resources in organization and development of scholarly research projects.

970:293. The Nature and Scope of Geography - 2 hrs.
Analysis of various currents of thought concerning nature, scope, and methodology of geography. Strongly recommended for those declaring an emphasis or major in geography.
970:298. Directed Research Project - 1 hr.
Research leading to research paper for students electing non-thesis option. Preparation of research proposal for students electing thesis option. Prerequisite: 970:288.
970:299. Research.

## 980 Sociology

980:022. Criminal Justice System - 3 hrs .
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: 980:058; sophomore standing.
980:045. American Radal and Ethnic Minorities - 3 hrs.
Survey of several American minorities, including Hispanics, Blacks, Asians, and Native Americans. Multi-disciplinary study of these groups with particular emphasis on geographic origins, linguistic traditions and current modes of economic subsistence. Introduction to folkways and mores of each group. (Same as 450:045 and 900:045.)
980:058. Principles of Sociology - 3 hrs.
Scientific approach to analysis and understanding of culture, human groups and institutions, personality, self, and social control.
980:060. Social Problems - 3 hrs.
Analysis of nature and range of social problems arising in modern industrial society. Consideration given to conditions creating them and methods by which society seeks to cope with them.
980:070. Prychology and Law - 3 hrs.
Addresses social psychological issues which deal specifically with the legal system. Topics covered include role of the psychologist as expert witness, eyewitness identification, repressed and false memories, the insanity defense, jury deci-sion-making and lie detection and confessions. Prerequisite: 400:008. (Same as 400:070.)
980:080. Statistics for Social Research - 4 hrs .
Levels of measurement, frequency distributions, graphic representations, measures of average, measures of dispersion, cross-tabulation and measures of association, Pearson correlation, bivariate regression analysis, probability and hypothesis testing, inferences involving single sample and two samples, analysis of variance. Instruction in and emphasis on use of statistical packnge for performing most computations, including homework assignments. Prerequisite: completion of mathematics requirement for General Education.
$\mathbf{9 8 0 : 1 0 0 ( g ) . ~ S o c i a l ~ P s y c h o l o g y ~ - ~} 3 \mathrm{hrs}$.
Analysis of how people's thoughts, feelings, actions, and identities are influenced by social processes, interactions, and structures. Special attention to how people acquire, construct and negotiate identities and how they are influenced by social realities of race, class, gender, and sexual orientation in these processes. Prerequisites: 980:058; junior standing.

## 980:102. Conflict Resolution-3 hrs.

Survey of social science theory and research in conflict resolution with emphasis on development of less destructive modes of problem solving in social formations. (Same as 450:102 and 990:102.)
980:105. The Family - 3 hrs.
Institutional aspects of family life. Prerequisites: 980:058; junior standing or consent of instructor.

## 980:108. Research Methods in Social Relations - $\mathbf{3} \mathbf{h r s}$.

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: 980:080. (Formerly 980:085.)

## 980:111. 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; worldwide perspective with special emphasis on United States. Prerequisites: 980:058; junior standing or consent of instructor.

## 980:112. White Collar Crime - 3 hrs.

Examination of theoretical definition, social impact, and changing relationship between current technological advancements and society's ability to both detect and punish white collar criminals.
980:116(g). Correctional Treatment: Theory and Practice $\mathbf{- 3}$ hrs.
Examination of evolution and development of correctional treatment in United States, with special attention to description and evaluation of programs in juvenile and adult corrections. Alternatives to rehabilitative ideal; students are expected to develop other treatment models. Prerequisites: 980:126; 980:127; junior standing.
980:119(g). Victimology - 3 hrs.
Sociological investigation of institutional, economic, family, and personal victimization in American society with special attention to causes and processes of exploitation. Prerequisites: $980: 058$; junior standing.
980:121(g). Mental Deviance and Mental Healch Institutions - $\mathbf{3}$ hrs.
Study of social factors associated with mental illness; its onset, the organizational context of its care and treatment, and its effects on various societal institutions. Prerequisites: 980:060; junior standing. (Same as 450:121g.)

## 980:122(g). Youth Gangs - 3 hrs.

Origins and development of youth gangs in United States. Topics include recent emergence of gangs, especially in Iowa, relationship between drugs and violence and gang activity, and creation of social policy to prevent and control gang activity. Prerequisites: 980:058; junior standing.
980:123(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 labeling processes and examination of social meaning of non-normative behavior. Prerequisites: 980:060; junior standing.
$980: 124(\mathrm{~g})$. The Sociology of Poliding -3 hrs.
Sociological investigation of evolution and structure of policing in United States society, with special attention to conflicts and imperatives which define police officers' roles and character of police work. Prerequisites: 980:022; junior standing.

## 980:125(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 modern industrial society. Prerequisites: 980:058; 980:060; junior standing.

## 980:126(g). Corrections and Punishment - 3 hrs.

Punishment and correction in modern society, changing relationship between organization of society and handling of criminal offenders; emphasis on character and functions of contemporary conditions, and alternative response to crime. Prerequisites: 980:022; junior standing.

## 980:127. 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: 980:022 or 980:060.
980:128(g). The Sociolegy of Law - 3 hrs.
Sociological analysis of judicial and jury decision making, legai structures, legislation, power, beliefs, conflict, and social change. Examination of criminal, civil, and public law. Prerequisites: 980:058; junior standing.
980:129(g). Comparatlve Criminology - 3 hrs.
Examination of criminology theory and practice in cross-cultural perspective. Prerequisites: 980:080; 980:123 or 980:127; junior standing.
980:130(g). Minority Group Relations - 3 hrs.
Study of interpersonal and social relations of minority groups within the larger American society, with special reference to Black-White relations. Prerequisites: 980:058; junior standing. (Same as 450:163g.)

## 980:131(g). Women and the Criminal Justice System - 3 hrs.

Sociological analysis of women as victims, offenders, practitioners, and professionals in the criminal justice system. Examination of changing perceptions and behaviors of women in United States and other countries in relation to role expectations of women in criminal justice system. Prerequisites: 980:022; junior standing.

## 980:132(g). Juvenile Justice - 3 hrs.

Examination of history, philosophies, and structure of juvenile justice system. Discussion of issues confronting legislators, the judiciary, and juvenile justice personnel in context of the need to provide treatment and protection of individual rights and liberty. Prerequisites: 980:022; 980:127; or consent of instructor, junior standing.

## 980:135(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: 980:058; junior standing.
980:138(g). Sociology of the Mass Media and Pepular Culture - 3 hrs.
Social and economic constraints affecting production of 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: 980:058 or 990:011; junior standing.
980:144(g). Population Studies - 3 hrs.
Comparative study of population composition, growth, and major trends throughout the world with respect to fertility, migration, and mortality. Introduction to techniques of population analysis, theories of population change, problems of population policies. Prerequisites: $980: 058$; junior standing
980:145(g). Research Experience in Sociology - 1-3 hrs.
Research participation and/or independent supervised research. May be repeated for maximum of 6 hours. Prerequisites: 15 hours in sociology including 980:080 and 980:108; junior standings consent of instructor.
980:148(g). Envirommental Sociology - 3 hrs.
Examination of issues of resource depletion and environmental degradation from socio-ecological perspective. Emphasis on interaction between these problems and patterns of social organization, and impacts of these problems on quality of life. Prerequisites: $980: 058$; junior standing.

## $980: 150(\mathrm{~g})$. Sociology of Conflict - 3 hrs.

Past and current theories of human aggression, competition; rational and nonrational conflict, and mass and individual violence. Special attention to social determinants of conflict. Prerequisites: 980:058; junior standing.
$\mathbf{9 8 0 : 1 5 1 ( g ) . ~ C r i m e ~ a n d ~ S o c i a l ~ I n e q u a l i t y ~}-3$ hrs.
Introduction and review of major issues and concepts in the study of crime; classical, positivist; discussion of psychological and sociological theories of criminal behavior, and recent empirical research on crime, in relationship to social inequality, particularly issues of social class, and racial/ethnic relations. Prerequisites: 980:058; junior standing.

## 980:160(g). Social Data Analysis - 3 hrs.

Intermediate methods of analysis using standing computer software program packages; descriptive and inferential statistics with controlled relationships, multivariate analysis, and scale analysis techniques. Primary orientation to survey data in social sciences. Prerequisites: 980:080 or equivalent; junior standing.
$\mathbf{9 8 0 : 1 6 1 ( g ) . ~ M u l t i v a r i a t e ~ T e c h n i q u e s ~ f o r ~ S o c i a l ~ a n d ~ B e h a v i o r a l ~ R e s e a r c h ~}$
-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 interpretation of factors; cluster analysis; discriminant analysis. Prerequisites: $980: 160$; junior standing.
980:162(g). Politics, Law and Culture: Crows-Cultural Perspectives - 3 hrs.
Comparative approach to study of politics and law in socio-cultural contexts. Consideration of political and legal institutions, systems and processes based on case studies from selected cultures. Focus on traditional cultures. Prerequisites: 980:058 or 990:011; junior standing. (Same as 990:162g.)
980:164(g). Cross-Cultural Perspectives on Education - 3 hrs.
Survey of education in selected cultures. Distinction made between process of education and schooling, and examination and comparison of these processes in pre-industrial, colonial/neocolonial and industrial societies. Prerequisites: 980:058 or 990:011; junior standing. (Same as 990:164g.)
980:16S(g). Survey Research Methods - 3 hrs.
Introduction and application of methods used in survey research and public opinion polling. Emphasis on survey sampliag, index and scale construction, questionnaire design, pre-testing, and report production. Prerequisites: 980:108; junior standing.
$980: 167(\mathrm{~g})$. Development of Gender In Cross-Cultural Perspective - 3 hrs.
Evolutionary, biological, psychological, cognitive, social, and cultural theories of gender development. Examples from Western and non-Western societies are reviewed in order to inform and transform theory. Prerequisites: 400:008 or 980:058 or 990:011; junior standing. (Same as 400:167g and 990:167g.)

980:168(g). Culture, Disease, and Healling - 3 hrs.
Cross-cultural consideration of cultural, biological and ecological factors in disease and health; disease and evolution, folk healers, non-Western medical systems and health care systems in the U.S. Prerequisites: 980:058 or 990:011; junior standing. (Same as 990:168g.)
980:169(g). Drug Use and Abuse in Cross-Cultural Perspective - 3 hrs . Biocultural approach to use of alcohol, hallucinogens, marijuane, opium, and other drugs in selected societies. Topics include relationships between druginduced states and deviant behavior, socio-cultural factors and addictive states, criminalization of drug use in U.S., and implications of cross-cultural perspective for prevention and treatment of drug abuse. Prerequisites: 980:058 or $990: 011$; junior standing. (Same as $990: 169 \mathrm{~g}$.)

## 980:170(g). The Development of Social Theories - 3 hrs.

Summary and critical appraisal of growth of sociological thought; historical consideration of social philosophy; introduction of leading sociological thinkers and their theories of society. Prerequisites: 980:058; junior standing.
$\mathbf{9 8 0 : 1 7 1 ( g ) . ~ T h e o r i e s ~ o f ~ S e x ~ a n d ~ G e n d e r ~ - ~} 3$ hrs.
Survey of theoretical approaches to atudy of sex and gender. Classical, structural, neo-Freudian, Marxist feminist, and radical approaches. Topics include work, family, religion, and sexuality. Prerequisites: 900:020 or 980:058 or 990:011; junior standing.

## 980:172(g). Soctology of Rellgion - 3 hrs .

Examination of 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: 980:058; junior standing.

## 980:173(g). Allenation - 3 hrs.

Exegesis of concept of alienation as conceived by Hegel, Marx, and current sociologists; emphasis on industrialism, division of labor and its relationship to social reification, mystification, and objectification. Prerequisites: 980:058; junior standing.
980:175(g). Theory and Criminal Justice - 3 hrs.
Analysis of crime and its effect upon society; examination of theoretical models undergirding prevention and control of criminal behavior, model-building exercises on justice system. Prerequisites: 980:127; senior standing or consent of instructor.

## 980:176(g). Social Change - 3 hrs.

Nature of social change and its implications for personality and society. Prerequisites: 980:058; junior standing.

## 980:177. Language, Culture and the Individual - 3 hrs.

Examination of relationships that exist among language, socio-cultural systems and the individual. Topics include the relationship between linguistic, cultural and social theories; comparative and historical studies of language and culture; the evolutionary and biological basis of language; language, culture, and world view; and the ways in which language relates to ethnicity (such as African American or Chinese), social clase, and gender. Prerequisite: 400:008 or 980:058 or 990:011. (Same as 400:177 and 990:177.)
980:178(g). Qualitative Research Methods - 3 hrs .
Development and application of qualitative descriptive and analytic methods used in social science research. Prerequisites: 980:058 or 990:011; junior standing. (Same as 990:178g).

## 980:180(g). Sominar in Sociology - $1-3$ hrs.

Selected topics; opportunity to correlate previous course work and knowledge in field of sociology. Topic indicated in Schedule of Classes. May be repeated for maximum of 6 hours. Prerequisites: 15 hours in sociology or consent of instructor; junior standing.

## 980:181(g). Seminar in Criminology - 3 hrs.

Selected topics; opportunity to focus previous course work and knowledge on a special issue in criminology. Topic indicated in Schedule of Classes. May be repeated for maximum of 6 hours. Prerequisites: 15 hours in criminology; junior standing.
$980: 184(\mathrm{~g})$. Theory and Practice in Applied Settings - $1-6 \mathrm{hrs}$.
Experiential learning in sociology or criminology. Requires prior consultation with instructor. Offered on credit/no credit basis only. Prerequisites: 12 hours in sociology or criminology; junior standing.
980:189(g). Readings in Sociology -1.5 hrs .
May be repeated only with consent of department. Prerequisites: 9 hours in sociology; junior standing consent of department.
980:198. Independent Study

980:200. Contemporary Sociology Theory - 3 hrs.
Description and analysis of main currents in contemporary sociological though principal sociological theorists; major themes, schoole, trends, issues, wat debates in theory. Prerequisite: $980: 170$. Open to seniors with consent of department head.

## 980:201. Advanced Research Methodology - 3 hrs.

Relationship between theory and research, grand methodology; logic and philow, ophy of sociology; science and sociology; theory construction, formal model explanation, prediction and cause; value freedom, objectivity, and ideolog, Prerequisite: 980:108. Open to seniors with consent of department head.
980:280. Seminar in Sociology - 3 hrs.
Topics include: Sociological Theory, Deviant Behavior, Social Psychology, Socir Stratification, Population, Sociological Research, Sociology of Religion, and oth 4 ers. Topic indicated in Schedule of Classes. Advanced course in specific schedt uled area will be considered a prerequisite to that seminar. Enrollment in differ-1 ent topics is not limited, but student should not enroll in two seminars on same topic.
900:295. Individual Readlings $-1-3 \mathrm{hrs}$.
980:297. Practicum.
980:299. Research.

## 990 Anthropology

990:010. Human Origins - 3 hrs.
Introduction to physical and prehistoric development of humankind, including primate and human evolution, modern races, and the archaeological cultures a the world.

## 990:011. Culture, Nature, and Society - 3 hrs.

Introduction to cross-cultural perspective on human behavior. Consideration of the nature of society and culture among diverse human groups, from hunterd gatherers to industrialized city dwellers, by examination of their technologiee economic systems, fapily life, political structures, art, languages, and religious beliefs and practices. Emphasis on non-Western societies.

## 990:102. Conflict Resolution - 3 hrs.

Survey of social science theory and research in conflict resolution with emphasir on development of less destructive modes of problem solving in social formations. (Same as 450:102 and 980:102.)
990:125(g). Introduction to Museum Studies - 3 hrs.
Exploration of history, public mission, working environment, and ethical issues of museums. Discussion of practical skills and theoretical issues of museum studies, exposing students to broad range of museum types and career opportunities. Prerequisite: junior standing. (Same as 960:125g.)
990:132. Native North America - 3 hrs.
Ethnographic survey of socio-cultural systems developed by Native Americans north of Mexico; emphasis on relationships that exist among ecological factors, subsistence techniques, social organizations, and belief systems, and the impact interections with European and U.S. societies had on Indian lifestyles. Prerequisites: 680:021; 680:022. (Same as 680:132.)
990:137. Native Central and South America - 3 hrs.
Ethnographic survey of socio-cultural systems developed by foraging and horticultural peoples of South America; emphasis on relationships that exist among ecological factors, subsistence techniques, social organizations, and belief systems from holistic, comparative and cross-cultural perspectives. Prerequisites: 680:021; 680:022. (Same as 680:137.)
990:141. Mesommerica and the Near East - 3 hrs.
Beginnings of food production, rise of complex culture and collapse of cultural systems as interpreted through archaeological data. Comparative approach focusing on Mesoamerica and the Near East. Prerequisites: 990:010; junior standing or consent of instructor.

## 990:142. Archacology of the Now World - 3 hrs.

Prehistory of North American Indians and major prehistoric cultures in Central and South America, including the Aztec, Maym, and Inca, traced from earliest arrival of peoples in the New World to time of European contact. Prerequisites: 990:010; junior standing or consent of instructor.
990:143. Archacology of the Old World - 3 hrs.
Prehistory of Africa, Asia, Europe, and Australia from dawn of humanity to civilizations of Egypt, Indus Valley, Mesopotamia, and China. Emphasis also on prehistory of simple hunter-gatherer cultures in the Old World. Prerequisite: 990:010; junior standing or consent of instructor.

## 990:144. Prehistory of the American Southwest - 3 hrs.

Archaeological record of the American Indians of New Mexico, Arizona, southern Colorado and southern Utah from earliest big-game hunters of the region, through development of agriculture, rise of large pueblos and cliff dwellings, and enigmatic abandonments prior to conquest by the Spaniards. Prerequisites: 990:010 or 990:011; junior standing.

## 990:145. Research Experience In Anthropology - 1-3 hrs.

Research participation and/or independent supervised research in anthropology. May be repeated for maximum of 6 hours. Prerequisites: 15 hours in anthropology; consent of instructor.

## 990:148(g). Applied Anthropology - 3 hrs.

Consideration of application of anthropology in analyzing and addressing contemporary social problems. Topics include economic development, public health, ethnic relations, and education. Prerequisites: 980:058 or 990:011; junior standing.
990:152(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. Presentation of implications for evolution, adaptation and disease. Prerequisites: 990:010; junior standing; consent of instructor.

## 990:153. Primate Behavior - 3 hrs.

Introduction to social behavior and ecology of prosimians, monkeys and apes. Laboratory and 200 studies included, with emphasis on primate behavior in natural settings. Prerequisites: 990:010; junior standing or consent of instructor.

## 990:154(g). Socioblology - 3 hrs.

Potential genetic advantages of different human behavior patterns. Seminar discussions and presentations on potential biological advantages to individuals with such traits as altruism, courtship, and rituals. Prerequisites: 990:010; junior standing; consent of instructor.

## 990:157(g). Ritual and Symbolism - $\mathbf{3}$ hrs.

Comparative approach to study of ritual in socio-cultural contexts. Consideration of psychological, sociological, and cultural interpretations of ritual symbolism based on case studies from selected non-Western cultures. Focus on rites of passage, rites of reversal, and rites of healing. Prerequisites: 980:058 or 990:011; junior standing.

## 990:158(g). Cross-Cultural Perspective on Mental Iliness - $\mathbf{3} \mathbf{h r s}$.

Cross-cultural approach to identification and treatment of mental disorders. Topics 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: 980:058 or 990:011; junior standing.

## 990:160(g). Psychological Anthropology - 3 hrs.

Psychological dimensions of socio-cultural 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: 990:011; junior standing.

## 990:161. Religion, Magic, and Witchcraft - 3 hrs.

Anthropological understanding of behavior dealing with the supernatural; supernatural beliefs, practices, and movements throughout the world. Prerequisite: 990:011 or consent of instructor. (Same as 640:161.)

## 990:162(g). Politics, Law and Culture: Cross-Cultural Perspectives - 3

 hrs.Comparative approach to study of politics and law in socio-cultural contexts. Consideration of political and legal institutions, systems and processes based on case studies from selected cultures. Focus on traditional cultures. Prerequisites: 980:058 or 990:011; junior standing. (Same as 980:162g.)

## $\mathbf{9 9 0} \mathbf{9 6 4 ( \mathrm { g } ) \text { . Cross-Cultural Perspectives on Education - } 3 \mathrm { hrs } . ~}$

Survey of education in selected cultures. Distinction made between process of education and schooling, and examination and comparison of these processes in pre-industrial, colonial/neocolonial and industrial societies. Prerequisites: 980:058 or 990:011; junior standing. (Same as 980:164g.)

990:167(g). Development of Gender in Cross-Cultural Perspective - 3 hrs.
Evolutionary, biological, psychological, cognitive, social, and cultural theories of gender development. Examples from Western and non-Western societies are reviewed in order to inform and transform theory. Prerequisites: 400:008 or 980:058 or 990:011; junior standing. (Same as 400:167g and 980:167g.)

## 990:168(g). Culture, Disease, and Healing - 3 hrs.

Cross-cultural consideration of cultural, biological and ecological factors in disease and health; disease and evolution, folk healers and non-Western medical systems and health care systems in the U.S. Prerequisites: 980:058 or 990:011; junior standing. (Same as 980:168g.)

## 990:169(g). Drug Use and Abuse in Cross-Cultural Perspective - 3 hrs.

Biocultural approach to use of alcohol, hallucinogens, marijuana, opium, and other drugs in selected societies. Topics include relationships between druginduced states and deviant behavior, socio-cultural factors and addictive states, criminalization of drug use in U.S., and implications of cross-cultural perspective for prevention and treatment of drug abuse. Prerequisites: 980:058 or 990:011; junior standing. (Same as 980:169g.)
990:171(g). Archaeological Theory and Method - 3 hrs.
Theoretical and methodological approaches to archaeological research. Topics include history of archaeological research; formation of archaeological record; current approaches to research design, data collection, artifact analysis, classification, quantitative and qualitative analysis, dating and inference. Prerequisites: 990:010; 990:011; 3 hours of 100-level archeeology or consent of instructor; junior standing.

## 990:172. Archneological Fieldwork - $\mathbf{3 - 8} \mathbf{~ h r s . ~}$

Field school: introduction to field research techniques (survey, excavation, mapping), laboratory processing, and hypothesis testing. Conducted in the field. Prerequisites: 990:010; consent of instructor.

## 990:176(g). Anthropological Theory - 3 hrs.

Major theoretical developments in anthropology, including both historical and contemporary schools and trends. Prerequisites: 990:011; junior standing.
990:177. Language, Culture and the Individual - 3 hrs.
Examination of relationships that exist among language, socio-cultural systems and the individual. Topics include the relationship between linguistic, cultural and social theories; comparative and historical studies of language and culture; the evolutionary and biological basis of language; language, culture, and world view; and the ways in which language relates to ethnicity (such as African American or Chinese), social class, and gender. Prerequisite: 400:008 or 980:058 or 990:011. (Same as 400:177 and 980:177.)

## 990:178(g). Qualitative Research Methods - 3 hrs .

Development and application of the qualitative descriptive and analytic methods used in social science research. Prerequisites: 980:058 or 990:011; junior standing. (Same as 980:178g.)

## 990:180(g). Seminar in Anthropology - 3 hrs.

Selected problems within one subfield of anthropology (cultural, physical, archaeological, or anthropological linguistics). Topic indicated in Schedule of Classes. May be repeated for credit. Prerequisites: junior standing; prerequisites will vary with topic.

## 990:184. Experlence in Applied Anthropology - 1-6 hrs.

Work experience in applied anthropology. Requires prior consultation with instructor. Offered on credit/no credit basis only. Prerequisites: 12 hours in anthropology; consent of instructor.
$990: 189(\mathrm{~g})$. Readings in Anthropology - 1-3 hrs.
May be repeated only with consent of department. Prerequisites: 9 hours in anthropology; junior standing; consent of department.
990:198. Independent Study.

Officers of the Board:
Owen J. Newlin, President Des Moines

Frank Stork, Executive Director Des Moines

Members of the Board:
Terms expire June 2001

Terms expire June 2003

Terms expire June 2005

Ellengray G. Kennedy, Bancroft Roger Lande, Muscatine Beverly A. Smith, Waterloo

Lisa E. Ahrens, Ames David J. Fisher, Des Moines
Dr. Clarkson L. Kelly, Jr., Charles City
David G. Neil, La Porte City Owen J. Newlin, Des Moines Dr. Deborah A. Turner, Mason City

## Administrative Stafi

## 2000-2002 <br> Officers of Administration

Robert D. Koob - B.A., University of Northern Iowa; Ph.D., University of Kansas
President of the University
Professor of Chemistry - 1995*
-haron Mayer Podolefisky - B.A., California State University-San Jose, M.A., MA., Ph.D., State University of New York-Stony Brook
Provost and Vice President - 1999
Professor of Anthropology - 1990
Remee C. Romane - B.A., M.S.Ed., Southern Illinois University-Carbondale; Ph.D., Iowa State University
Vice President for Educational Student Services - 1988 (1999)
John E. Conner - B.S., University of Illinois; M.A., Western Illinois University
Vice President for Administration and Finance - 1984
William D. Celhoun, Jr. - BA., Hiram College, Ohio; M.A., University of Northern Iowa
Vice President for University Advancement/President, UNI Foundation - 1981 (1999)
*Patricia L. Geadelmann - B.A., University of Northern Iowa; M.A., University of Iowa; Bd.D., University of North Carolina-Greensboro Executive Assistant to the President/Director of External Relations - 1996
Professor of Physical Education - 1972 (1984)

## Office of the President

Robert D. Koob - BA., University of Northern Iowa; Ph.D., University of Kansas
President of the University
Profeneor of Chemistry - 1995*
Doris L. Miller - B.A., University of Northern Iowa
Administrative Assistant - 1949 (1965)

## Executive Assistant to the President

*Patricia L. Geadelmann - BA., Univerxity of Northem Iowa; M.A. University of Iows; Ed.D., University of North Carolina-Greensboro Executive Assistant to the President/Director of External Relations - 1996 Professor of Physical Education - 1972 (1984)
Keith D. Saunders - B.A., University of Northern Iowa; J.D., University of lowa
Associate Director of Governmental Relations - $19 \%$ (2000)
Jane E. Larson - B.A., University of Northern Iowa Administrative Assistant - 1982 (1991)

## Office of Compliance and Equity Management

Winston Burt - B.A., Inter-American Univerxity, Puerto Rico; M.S., Ed.S., Ph.C., Ph.D., University of Michigan
Assistant to the President and Director of Office of Compliance and Equity Management - 1999
Adjunct Professor of Social Work - 1988

## Office of Operations Auditor

Timothy J. McKenna - B.A., St. John's University, Collegeville, Minnesota; J.D., University of Minnesota Law School

Operations Auditor - 1988
Carla S. Maletta - B.B.A., Iowa State University
Internal Auditor - 1992 (1997)

[^7][^8]
## Division of Instruction

## Division Administration

*Aaron Mayer Podolefsky - B.A., California State University-San Jose; M.A., M.A., Ph.D., State University of New York-Stony Brook

Provost and Vice President - 1999
Professor of Anthropology - 1990
Garrett A. Bozylinsky — B.A., Elizabethtown College; M.A., George
Washington University
Associate Vice President for Information Technology - 1997
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 Educational Psychology and Foundations 1983 (1989)
Director of Ronald E. McNair Program - 2000
*Susan J. Koch - B.S., Dakota State College; M.A., Ed.D., University of Northern Iowa
Associate Vice President for Academic Affairs - 1999
Professor of Health Education - 1983 (2000)
*Timothy E. O'Connor - B.A., M.A., Creighton University; Ph.D., University of Minnesota
Assistant Vice President of Academic Affairs for International Programs - 1995
Professor of History - 1982 (1992)
*Willis (Bill) R. Greer - B.S., M.B.A., Cornell University; Ph.D., University of Michigan
Dean of the College of Business Administration
Professor of Accounting - 1996
*Joel K. Haack - B.A., M.S., M.S., Ph.D., University of Iowa
Interim Dean of the College of Natural Sciences - 2000
Professor of Mathematics - 1991
*Glenn L. Hansen - B.A., M.A., University of Northern Iowa; Ph.D., Texas A\&M University
Dean of the Division of Continuing Education and Special Programs
Associate Professor of Management - 1964 (1982)
*James F. Lubker - B.S., Mankato State; M.A., Ph.D., University of Iowa
Dean of the College of Humanities and Fine Arts
Professor of Communicative Disorders - 1995
"Marilyn Mercado - B.A., Point Park College; M.L.S., University of Pittsburgh; M.A., University of Northern Iowa
Interim Dean of Library Services - 2000
Associate Professor of Library Science - 1989 (1995)
"John W. Somervill - B.A., Rhodes College; M.A., University of Mississippi; Ph.D., University of Arkansas
Dean of the Graduate College (1989)
Professor of Psychology - 1975 (1979)
*Thomas J. Switzer - B.A., University of Northern Iowa; Ph.D., University of Michigan
Dean of the College of Education
Professor of Education - 1987
"Julia E. Wallace - B.S., State University of New York-Oswego; M.A., State University of New York-Binghamton; M.S., University of Iowa; Ph.D., State University of New York-Binghamton
Dean of the College of Social and Behavioral Sciences - 1999
Professor of Psychology — 1978 (1989)

College of Business Administration
*Willis (Bill) R. Greer - B.S., M.B.A., Cornell University; Ph.D., University of Michigan
Dean of the College of Business Administration
Professor of Accounting - 1996
*Farzad Moussavi - B.A., Institute of Advanced Accounting, Iran; D.A.S., Leeds Polytechnic, England; M.B.A., Roosevelt University; Ph.D., University of Arkansas
Associate Dean of the College of Business Administration - 2000
Professor of Management (Organizational Behavior and Strategic Management) - 1985 (1997)

Cindy S. Angel - B.A., M.B.A., University of Northern Iowa
Research Manager, Institute for Decision Making, Business and Community Services - 1984 (1990)
Christy L. Bauer - B.A., University of Northern Iowa
Program Associate, Strategic Marketing Services, Business and Community Services - 1998
LaDene Bowen - B.A., Metropolitan State College-Denver, Colorado
Project Manager, Institute for Decision Making, Business and Community Services - 1990
Lyle Bowlin - B.L.S., M.A., University of Iowa
Assistant Director, John Poppajohn Entrepreneureal Center - 1987 (1999)
Donald G. Chaplain - B.A., Drake University
Program Manager, Institute for Decision Making, Business and Community Services - 1992
Andrew P. Conrad - B.A., Marycrest College; M.P.P., University of Northern Iowa
Program Manager, Institute for Decision Making, Business and Community Services - 1993 (1999)
Linda A. Corbin - B.A., University of Northern Iowa
Coordinator of Undergraduate Programs for the College of Business Administration - 1981 (1984)
Jonathan Cox - B.A., University of Northern Iowa
Coordinator of Minority and Student Diversity Program for the College of Business Administration - 1995 (1998)
Kimm Frost - B.A., University of Utah
Academic Advisor for the College of Business Administration - 1984 (1996)
Gregory P. Gerjerts - B.A., M.A., University of Northern Iowa
Program Manager, Marketing/Market Research and Analysis, Strategic Marketing Services, Business and Community Services - 1993 (1994)
Kevin Hall - B.A., Ripon College
Systems Integrator, Business and Community Services - 1999
Kent Hansen - B.S., Brigham Young University; M.B.A., University of California-Los Angeles
Program Manager, Market Research, Strategic Marketing Services, Business and Community Services - 1991 (1994)
Bret Jacobsen - B.S., Buena Vista University
Computer Support Specialist for the College of Business Administration - 1997
Kathryn B. Luze - B.A., Iowa State University
Program Associate, Management and Professional Development, Business and Comimunity Services - 1999
Susan L. Meyeraan - B.B.A., University of Iowa; M.B.A., University of Northern Iowa; M.A., University of lowa
Assistant Director, Management and Professional Development Center, Business and Community Services - 1997 (1999)

## Lowell Norland

Director of Iowa Training Opportunities Program, Business and Community Services - 1987
Ronald A. Padavich - B.A., Northeast Missouri State University
Director of Strategic Marketing Services, Business and Community Services 1988 (1991)
Director of Management and Professional Development
Randal R. Pilkington - B.A., University of Northern Iowa
Director of the Institute for Decision Making, Business and Community Services -1987 (1990)
Executive Director of Business and Community Services - 1999
*William C. Wood II - A.B., Lenoir-Rhyne College; M.Div., Lutheran Theological Southern Seminary; M.E., Ph.D., University of Virginia
Program Manager, Institute for Decision Making, Business and Community Services - 1987 (1995)

## College of Education

*Thomas J. Switrer - B.A., University of Northern Iowa; Ph.D., University of Michigan
Dean of the College of Education
Professor of Education - 1987
*William P. Callahan II - B.A., University of Southern Florida; M.A.T., Rollins College; Ed.D., University of Florida
Associate Dean of the College of Education - 1988
Professor of Special Education - 1979 (1989)

## Child Development Center

Jill M. Uhlenberg - B.A., M.A.E, M.A.E., University of Northern Iowa
Coordinator/Head Teacher, Instructor - 1989 (1995)
Sherl J. Hoffiman - B.A., M.A.E., University of Northern Iowa
Child Care Specialist - 1996
Lynda L. Loy - B.A., Morningside College
Child Care Specialist - 1989 (1996)
Mary L. McCarty - B.A., University of Northern Iowa
Child Care Specialist - 1993
Christy H. Olson - B.A., M.Ed., University of San Diego
Child Care Specialist - 1999
Sheryl Pavelec - B.A., University of Northern Iowa
Child Care Specialist - 2000
Candice L. York - B.A., University of Northern Iowa
Child Care Specialist - 1997

## College of Education Advising Center

Kay E. Davis - B.A., M.A.E., University of Northern Iowa
Director and Academic Advisor - 1985
Debra Keller - B.A., University of Northern Iowa
Academic Advisor - 1999
Karen Silverson - B.A., M.A.E., University of Northern Iowa
Academic Advisor - 1988
Katharine A. Weaver - B.A., University of Northern Iowa
Academic Advisor - 1999

## Instructional Resources and Technology <br> Services

Matthew A. Kollasch - B.A., M.A., University of Northern Iowa
Director - 1993
Neil Clopton - B.A., University of Northern Iowa
Information Technology Specialist - 1997 (1999)
Maxine Davis - B.A., Wartburg College
Resource Center Coordinator - 1989 (1991)

## School of Health, Physical Education, and

Leisure Services
*Christopher R. Edginton - B.A., San Jose State University; M.S., University of lllinois; Ph.D., University of lowa
Director of the School of Health, Physical Education and Leisure Services 1991
Professor of Leisure Services
David C. Edginton - B.S., University of Oregon
Program Assistant, Camp Adventure - 1995
Susan R. Edginton - B.A., Laurier University; M.A., University of Oregon
Program Development Coordinator, Camp Adventure - 1991
Walter R. Heinecke - B.A., University of Redlands; M.A., George Washington University
Coordinator of International Marketing, Camp Adventure - 1992
Gordon H. Mack - B.A., Southern University; M.A., New York University Director, American Humanics - 1994
Joseph Kmasi Ogah - B.Ed, University of Cape Coast, Ghana; M.A., University of Northern Iowa
Logistics Coordinator/African Operations, Global Health Corps - 1998 (2000)
Guy Yehiell
Coordinator/Security and Personal Safety Operations
Logistics Coordinator/Middle Eastern Operations, Global Health Corps - 2000

## Department of Special Education

*Sandra K. Alper - B.S., M.A., Ph.D., University of Iowa
Head of the Department of Special Education - 1994
Professor of Special Education
Candace Sawyer - B.A., University of Nebraska; M.A.E., University of Northern lowa
Administrator, Northern Iowa Instructional Clinic - 1991
Lora Hickman - B.A., University of Northern Iowa
Assistant to Administrator of Northern Iowa Instructional Clinic - 1995

## Department of Teaching

"Roger A. Kueter - B.A., Loras College; M.A., Ed.D., Indiana University
Head of the Department of Teaching - 1990
Professor of Education: Curriculum \& Instruction - 1970 (1988)
Dorothea D. (Dody) Olson - B.S.N., Upper Iowa University; M.S.N., University of Minnesota
School Nurse, Price Laboratory School - 1987
Judith D. McConnaha - B.A., B.S., Ohio State University
International Field and Educational Experiences Coordinator - 1997 (1999)
Mary L. Weber - B.A., University of Maryland; M.A., University of Northern Iowa
Librarian, Price Laboratory School - 1999
College of Humanities and Fine Arts
*James F. Lubker - B.S., Mankato State; M.A., Ph.D., University of lowa
Dean of the College of Humanities and Fine Arts
Professor of Communicative Disorders - 1995
*Reinhold K. Bubser - Abitur, Ziehen-Realgymnasium (Frankfurt); B.A., Western Michigan University; M.A., Ph.D., Michigan State University Associate Dean of the College of Humanities and Fine Arts - 1996
Professor of German - 1982 (1984)
Sean Kinlln - B.S., University of Michigan
Technology Engineer - 1998
Steven C. Larson - B.S., Iowa State University
Information Technology Coordinator for the College of Humanities and Fine Arts - 1997
Bruce C. Marquis - B.F.A., M.F.A., Ohio University
Director of Gallagher-Bluedom Performing Arts Center - 1997
Department of Art
*Mary Frisbee Johnson - B.A., Montana State University; M.P.A., University of Cincinnati
Head of the Department of Art - 1999
Professor of Art
Shawn F. Holz - B.F.A., University of North Dakota; M.F.A., Texas Tech University
Director of the Gallery of Art - 1997
Marc E. Moulton - B.A., Weber State College; M.F.A., Ohio State University Shop Technician - 1989

## Broadcasting Services

Douglas L. Vemier - B.A., M.A., University of Michigan
Director of Broadcasting Services
Assistant Professor of Radio/Television - 1972
Jeneane Brewer - B.A., Iowa State University
Des Moines Bureau Chief - 1999
Robert K. Dorr - B.A., University of Northern Iowa
Announcer - 1974 (1986)
Jacquelline C. Halbloom - B.M., Cornell College; M.M., University of Oregon Senior Producer/Fine Arts - 1999
David E. Hays - A.A., North Iowa Area Community College; A.A.S., Iowa Central Community College
Public Information Coordinator - 1979 (1985)
Karen L. Impola - B.A., Swarthmore College
Senior Producer, Folk - 1990
Wayne N. Jarvis - B.A., University of Northern Iowa
Senior Producer/Program Coordinator - 1973 (1993)
Carl R. Jenkins - B.A., M.A., University of Northern lowa
Assistant Director of Broadcasting/Programming - 1962 (1976)
Phil Maats - B.A., Oberlin College
Radio Events Producer - 1995

Jons C. Olsson - B.A., Thiel College, Pennsyivania
Assistant Director of Broadcasting/Development - 1978
Patricia Dlthoff-Blank - A.A., Iowa Lakes Community College, B.A., University of Northern Iowa
Producer/Announcer, News - 1986 (1995)
Catherine Orth - B.A., University of Northern Iowa
Development Associate - 1997
Allen T. Schares - B.A., University of Northern Iowa
Music Coordinator/Producer - 1983 (1990)
Steven L. Schoon - A.A.S., Cleveland Institute of Technology
Assistant Director/Technical Operations - 1986 (1997)
Gregory B. Shanley - B.S., Ohio University
Senior Producer/News Director - 1986 (1990)
Mark A. Simmet - B.A., St. John's University
Announcer - 1987
Diane S. Thompson - B.A., M.A., University of Northern Iowe
Program Assistant - 1980 (1993)
Leonard R. Tomkins - A.A.S., Hawkeye Institute of Technology
Broadcast Engineer — 1998

## Department of Communicative Disorders

Theresa A. Kouri - B.A., M.A., University of Northern Iowa; Ph.D., Kent State University
Instructor and Speech Language Hearing Clinician Coordinator - 1991
Darla L. Sharar - B.A., M.A., University of Northern Iowa
Instructor and Speech-Language Pathologist - 1999

## School of Music

*John F. Vallentine - B.M.E., Southeast Missouri State University; M.M., University of Northern Iowa; Ph.D., University of Kentucky
Director of the School of Music - 1999
Associate Professor of Bands - 1991 (1999)
Robert Bymes - B.A., M.A., University of Northern Iowa
Administrative Assistant
University Carillonneur
Adjunct Instructor of Choral Music — 1974 (1981)

## Department of Theatre

Stephen W. Taft - B.S.E., Central Missouri State University; M.A., Southwest Missouri State University; Ph.D., Texas Tech University
Head of the Department of Theatre - 2000
Associate Professor of Theatre and Dance
Jascenna Haislet-Carlson - B.F.A., M.F.A., Wayne State
Publicist/Marketing Director - 1995 (1997)
Mark A. Parrott - B.A., Graceland College; M.S., Central Missouri State University; M.F.A., Southern Illinois University-Carbondale
Designer/Instructor - 1997

## College of Natural Sciences

*Joel K. Haack - B.A., M.S., M.S., Ph.D., University of Iowa
Interim Dean of the College of Natural Sciences - 2000
Professor of Mathematics - 1991
*Barton L. Bergquist - B.S., North Park College; M.S., Northeastern Illinois University, Ph.D., University of Kansas
Associate Dean of the College of Natural Sciences - 1995
Professor of Biology - 1978 (1992)
Amy E. Devis - B.A., Clarke College
Director of Development/College of Natural Sciences and College of Social and Behavioral Sciences - 1997
Cameron D. Miller - B.S., Adams State College
UNIX System Administrator - 2000
Cheryl R. Smith - B.A., University of Wisconsin-Madison
Associate Coordinator, UNI Iowa Space Grant Consortium - 1992

## Department of Biology

"Barbara A. Hetrick - B.A., Ohio Wesleyan University, M.S., Washington
State University; Ph.D., Oregon State University
Head of the Department of Biology — 1994
Professor of Biology
Ron D. Camarata
Biology Greenhouse and Preserves Manager - 1968 (1985)

Billie A. Hemmer-Callahan
Biology Greenhouse and Preserves Assistant - 1997
Sherry L. Nuss
Biology Academic Advisor - 1998
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
Diane J. Albertson - B.A., University of Northem Iowa
Information Technology Specialist - 1990 (1999)
Sue K. Behrns - B.A., University of Northern Iowe
Waste Reduction Specialist - 1991
Ana Maria Borts - B.S., University of Northern Iowa
Waste Reduction Research Specialist - 1998 (1999)
Marci S. Carter - B.S., University of California-Los Angeles
Waste Reduction Specialist - 1994
Somnath Dasgupta - B.S., University of Roorkee, India; M.S., University of Illinois-Chicago
Waste Reduction Specialist - 1993
Jennifer L. Drenner - B.A., University of Northern Iowa
Waste Reduction Specialist - 1996
Jeff England - B.S., University of Northern Iowa
Waste Reduction Research Assistant - 1998 (1999)
Brian L. Gedlinske - B.S., Iowa State University; B.A., University of Northern Iowa
Environmental Specialist - 1994
Christopher M. Horan - B.S., M.S., University of Northern Iowa
Waste Reduction Specialist - 1995
Lisa Hurban - B.S., B.S., Rutgers University
Waste Reduction Specialist - 1992
Chris Lampe - B.A., University of Northern Iowa
Waste Reduction Research Assistant - 1999
Daniel J. Nickey - B.S., Wesley College
Waste Reduction Specialist - 1994
James Olson - B.A., University of Northern Iowa; M.S., Southern Illinois University-Carbondale
Waste Management Specialist - 1988
Susan K. Sommerfolt - B.A. University of Northern lowa
Waste Reduction Specialist - 1997
Tim Trumbull - B.S., College of Charleston
Waste Reduction Research Assistant - 1998 (1999)
Christine K. Twalt - B.A., University of Northem Iowa; M.P.A., Iowa State University
Program Manager - 1996 (1998)
Bill Zimmerle - B.A., University of Northern Iowa
Waste Reduction Specialist - 1997 (1998)

## College of Social and Behavioral

## Sciences

-Julia E. Wallace - B.S., State University of New York-Oswego; M.A., State University of New York-Binghamton; M.S., University of Iowar; Ph.D., State University of New York-Binghamton
Dean of the College of Social and Behavioral Sciences - 1999
Professor of Psychology - 1978 (1989)
*Phyllis L. Baker - B.A., San Diego State University; M.A., Ph.D., University of California-San Diego
Associate Dean of the College of Social and Behavioral Sciences - 1999
Associate Professor of Sociology - 1990 (1997)
Director of Graduate Women's Studies Program - 1998
Amy E. Davis - B.A., Clarke College
Director of Development/College of Social and Behavioral Sciences and College of Natural Sciences - 1997
Mark A. Doble - B.A., University of Northem lowa
PC Support Specialist - 1999
Jessica L. Moon - B.A., University of Northern Iowa
Assistant Coordinator of Scholarship Programs and Development - 1998
Thomas M. Turner - B.A., University of Northern Iowa
Information Technology Specialist — 1995 (1996)

## Continuing Education and Special Programs

*Glenn L. Hansen - B.A., M.A., University of Northern Iowa; Ph.D., Texas A\&\&M University
Dean of the Division of Continuing Education and Special Programs
Associate Professor of Management - 1964 (1982)
Michael L. Savage - B.A., Baldwin-Wallace College; B.A., University of Northern Iowe
Information Technology Specialist - 1995

## Credit Programs

James E. Bodensteiner - B.A, Loras College; M.A., Ed.S., University of Northern lowa; Ed.D., Drake University
Director of Credit Programs - 1983
Kent M. Johnson - B.A., M.A., University of Northern Iowe
Associate Director of Credit Programs - 1993
Michelle Clark - B.A., M.A.E., University of Northern Iowa
Continuing Education Advisor
Isabelle D. Cowden - B.S., University of Wisconsin-Platteville; B.A., Coe College; M.A., University of Northern Iowa
Instructional Developer, Credit Programs - 1998

## Individual Studies Program

Nancy Bramhall - B.A., M.A., University of Northern Iowa
Administrator of Individual Studies Program - 1978 (1981)
Karen Cunningham - B.A., M.A., University of Northern Iowa
Special Programs Advisor - 1999

## Non-Credit Programs

Aureliaa L. Klink - B.A., M.A., University of Northem Iowa
Director of Non-Credit Programs
Assistant Professor of Management - 1966 (1985)
Joan E. Kotels - B.A., Loras College; M.A., University of Northern Iowa Associate Director of Contract Training, Non-Credit Programs - 1997 (1999)
Elizabeth S. Wilson - B.A., Kansas Wesleyan University; M.A., University of North Carolina-Chapel Hill; M.Ed., Wichita State University
Associate Director of Educational Event Management, Non-Credít Programs 1993 (1999)
Kathleen E. Brown - B.S., University of Wisconsin-LaCrosse
Program Assistant/Educational Event Management, Non-Credit Programs 1999
Jennifer L. Colsch - B.A., University of Northern Iowa
Program Assistant/Marketing and Promotions, Non-Credit Programs - 1999
Michaela L. Rich - B.S., M.A., University of Northern Iowa
Coordinator of Contract Training, Non-Credit Programs - 1998 (1999)

## Southwest Iowa Regents Resource Center

Jeanne M. Trachta - B.S., M.S., Iowa State University
Director of Southwest Iowa Regents Resource Center - 1996

## 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.Ed., DePaul University; Ph.D., Northwestern University
Associate Dean for Student Services, Graduate College
Associate Professor of Educational Leadership, Counseling, and Postsecondary Education - 1990
David A. Walker - B.S., Missouri Valley College; M.A.t Louisiana State University; Ph.D., University of Wisconsin-Madison
Associate Dean for Faculty and Grant Services, Graduate College
Professor of Hintory - 1975 (1989)
Edward M. Ebert - B.A., M.A., University of Northern Iowa
Grants and Contracts Administrator - 1977 (1985)
Barbara A. Kueter - B.A., Mount Mercy College
Thesis/Dissertation Reviewer - 1988 (1996)

## Center for the Enhancement of Teaching

*G. Roger Sell - B.A., University of Denver; Ph.D., University of CaliforniaSanta Barbara
Associate Professor of Education - 1993 (1994)
Director of Center for Enhancement of Teaching - 1993

## Educational Opportunity Programs

and Special Community Services
Charles LL. 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 Educational Psychology and Foundations 1983 (1989)
Director of Ronald E. McNair Program - 2000
Dennis M. Irons - B.A., Wittenberg University; M.A., Ph.D., Texas Christian University
Research Analyst for Educational Opportunity Programs - 1996

## Center for Academic Achievement

Kathleen M. Peters - B.A., M.A.E., University of Northern Iowa
Director, Center for Academic Achievement - 1982 (1994)
Dorla D. Dutcher - B.A., University of Northern Iowa
Mathematics Specialist, Center for Academic Achievement - 1988
Deanne S. Gute - B.A., M.A., University of Northern Iowa
Writing Specialist, Center for Academic Achievement - 1997
Lorl A. VanHooreweghe - B.A., M.A.E., University of Northern Iowa
Academic Support Specialist, Center for Academic Achievement

## Classic Upward Bound Program

Wilfred M. Johnson - B.A., M.A.E., University of Northerm Iowa
Director, Classic Upward Bound - 1989 (1994)
Rhonda L. McRina - B.A., M.Ed., University of Montevallo
Assistant Director, Classic Upward Bound
Nancy J. LeMont - B.A., University of Northem Iowa
Academic Coordinator/Counselor, Classic Upward Bound - 1995 (1999)

## Educational Opportunity Center

Robert L. Smith, Jr. - B.A., University of Iowa
Director, Educational Opportunity Center - 1988 (1991)
Rachel L. Phillips - B.S., Drake University
Assistant Director, Educational Opportunity Center - 1990 (1991)
Boni K. Cole - B.A., University of Iowa
Educational Counselor, Educational Opportunity Center - 1995
Glsella C. Lukensmeyer - A.A., B.A., Black Hills State University
Educational Counselor, Educational Opportunity Center
Kay L. Maher-Sharp - B.A., University of Northern Iowa
Educational Counselor, Educational Opportunity Center - 1998
Kathy S. Martin - B.A., University of Northern Iowe
Educational Counselor, Educational Opportunity Center - 1996

## Educational Talent Search Program

Lawanda Brown - B.S., Southern University at New Orleans; M.A., University of Northern lowa
Recruiter/Advisor Educational Talent Search — 1997
Clifford E. Coney - B.A., University of Northern Iowa
Senior Counselor, Educational Talent Search - 1987 (1993)
Anthony Stevens - B.A., Wartburg College; M.A., University of Northern Iowa
Director, Educational Talent Search - 1972 (1985)
Jason E. Streed - B.A., University of Northern Iowa
Recruiter/Advisor, Educational Talent Search - 1995
Angela Weekley - B.A., Wartburg College
Recruiter/Advisor, Educational Talent Search - 1999
Ronald E. McNair Program
Reygan M. Freeney - B.S., M.A., University of Northern Iowa
Assistant Director for the Ronald E. McNair Program - 1999 (2000)

## Student Support Services

JoAnn Anderson-Wright - B.A., Luther College
Academic Support Specialist, Student Support Services - 1979 (1999)
Inez M. Murtha - B.A.s M.A., University of Northern Iowa
Director, Student Support Services - 1969 (1994)
Barbara M. Poe - B.A., University of Northern Iowa
Coordinator of Tutorial Services/Supplemental Instruction, Student Support Services - 1988 (1991)

## UNI Center for Urban Education (UNI-CUE)

Karen K. McNeil — B.S.Ed., Lincoln University; M.A., University of Northern Iowa
Director, UNI-CUE - 1981 (1996)

## Upward Bound Math and Science Center Michele A. Mullings-Shand -B.S., University of the West Indies; M.S.,

 Purdue UniversityDirector, Upward Bound Math and Science Center - 1994 (1995)
Nicholas D. Sullivan - B.A., University of Northern Iowa
Academic Advisor, Upward Bound Math and Science Center - 1996

## Information Technology Services

## Administration

Garrett A. Bozylinsky — B.A., Elizabethtown College; M.A., George Washington University Associate Vice President for Information Technology — 1997

## ITS Educational Technology

Marilyn Drury - B.A., University of Northern lowa; M.A., Truman State University
Director, Educational Technology - 1999
Terry D. Goro - B.A., M.S., Southern Illinois University, D.I.T., University of Northern Iowa
Coordinator of Instructional Technology Services - 1973 (1993)
Doreen Hayck - B.A., M.B.A., University of Northern Iowa
Special Projects Administrator - 1984 (1995)
Todd Hayungs - A.A., Hawkeye Community College
Educational Technology Engineer - 1994
Sandra J. Hendrickson - B.A., M.A., University of Northern Iowa
Coordinator of Graphics and Courseware Production - 1984 (1993)
Philip Hibbard - A.A., North Iowa Area Community College; B.S., Iowa State University; M.S., University of Northern Colorado; Ed.D., University of Northern Iowa
Educational Technology Specialist - 1991 (1994)
Joseph J. Marchesani - B.A., Fordham University; M.S., Brooklyn College; M.Ed.,Temple University

Coordinator of Audio and Video Services - 1972
Assistant Professor of Education
TyAnn Morehead - B.S., Concordia University; M.A., University of Northern Iowa
Instructional Design and Development Specialist - 1997
Emrys L. Pugh - Electronics, DeVry Technical Institute
Senior Television Engineer - 1979
Dennis B. Reimer - B.A., M.A., University of Northern Iowe
Coordinator of Multimedia Distribution - 1967 (1993)
Lori Sawwl - B.A., M.A., M.A., University of Northern lowa
Educational Technology Specialist - 2000
Rick Seeley - B.A., University of Northern Iowa
Coordinator of Multimedia Conferencing - 1995 (1997)
Charles Sengstock - B.A., Iowa Wesleyen College; M.A., University of Northern Iowa
Coordinator of Multimedia Production - 2000
Boyd Sherbet - B.A., Vennart College; M.A.E., University of Northern Iowa ICN Scheduler - 1995 (1997)
Jason Vetter - B.A., Luther College; M.A.E., University of Northern Iowa Educational Technology Specialist - 1999

## ITS Information Systems

Dennis R. Lindner - B.A., Wartburg College
Director, Information Systems - 1978 (1989)
Troy Bull - B.S., Iowa State University
Senior Programmer Analyst - 1996
Maureen F. Daley -A.A., Eastern Iowa Community College; B.S., Iowa State University
Systems Analyst - 1985 (1987)
Regeana Fisher - A.A.S., Kirkwood Community College
Senior Programmer Analyst - 1993 (1995)
Kevan E. Forest - B.A., Clarke College
Data Base Administrator - 1998
Roberta L. Fox - B.A., University of Northern Iowa
Senior Programmer Analyst - 1976 (1991)
Mary Ann Hausmann - B.S., Bradley University; M.S., University of lowa
Programmer Analyst - 1995
Julie Heiple - B.A., University of Northern Iowa
Data Access Administrator - 1979 (1996)
Dennis Johnson - B.M., B.A., University of Northern Iowe
Senior Programmer Analyst - 1994
Holly Jongedyk - B.S., University of Iowe
Programmer Analyst - 1999
Connic Ketterer - B.A., University of Northern Iowa
Systems Analyst - 1992 (1995)
Galina Lerner - B.S., University of Moscow, U.S.S.R.
Programmer Analyst - 1997
Monica Mundhenke - A.S., Southeastern Iowe Community College; B.A.,
University of Northem Iowa
Information Systems Manager - 1986 (1997)
Patricia J. Palmershelim
Data Base Analyst - 1971 (1989)
Kevin R. Quarnstrom - A.A., Boone Junior College; B.A., M.B.A., University of Northern Iowa
Information Systems Manager - 1979 (1985)
Lyle A. Rasmussen - B.S., Iowa State University
Information Systems Coordinator - 1978 (1981)
Laura Richter - B.A., University of Northern Iowa
Systems Analyst - 1993
Patricia L Rooff - BA., Regis College
Programmer Analyst - 1999
Mark Schauls - B.A., University of Northern Iowa
Senior Programmer Analyst - 1996
Judy Schultz - Diploma, Kirkwood Community College; B.A., Wartburg College
Senior Programmer Analyot - 1996
Yayol Teramoto - B.A., Coe College
Programmer Analyst - 1998
Darlene Van Pelt - B.A., University of Iowa
Programmer Analyst - 1998
Mary C. Westenderf - BA., University of Northera Iowa
Systems Analyst - 1988 (1995)

## ITS Network Services

Steven Y. Moon - B.A., University of Northern lowa; M.S., University of Iowe Director, Network Services - 1979 (1989)
Douglas Case - B.S., University of Northern Iowa
Local Area Network Specialist - 1994
Kenneth D. Connelly - B.A., B.A., University of Northern Iowa
Systems/Operations Manager - 1983 (1989)

## Sharon Drachenberg

Telecommunications Specialist -1990 (1998)

## Randy Hayes

Voice Service Manager - 1996
Robert W. Hetrick - A.A., Penowsyvania State University; B.S., University of Wyoming
Wide Area Network Specialist - 1994
Gene Lawin - B.A., University of Northern Iowa
Computer Network Systems Manager - 1990
Clyde B. Luck, Sr.
Data Control Coordinator - 1969 (1989)

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## Administrative Staff

Randall A. Maas - B.S., Iowa State University
Senior Systems Coordinator - 1985
Dan Nelson - B.A., University of Northern Iowa
Residential Network Specialist - 1998
Jon R. Wolter - A.A.S., Hawkeye Institute of Technology
Field Service Manager - 1984 (1989)
Peter Yezek-Thompson - A.A., North Iowa Area Community College; B.A., University of Northern Iowa
Web Tools Specialist - 1992
Koith Young - B.A., University of Northern Iowa
YNIX Programmer - 1997

## ITS User Services

Thomas C. Peterson - A.A., Boone Junior College; B.S., Iowa State University Director, User Services - 1982 (1989)
Sandra Brasch - B.A., M.A., University of Northern Iowa
Support Services Coordinator - 1998
Jordan Dierks - B.S., Upper Iowa University
Workstation Resource Specialist - 1999
Jack Miller - B.S., Belknap College, New Hampshire; M.A., Webster University
Consulting Center Manager - 1992
Dana L. Pelffer - A.A., DeVry Institute of Technology
PC Support Coordinator - 1999
Diane C. Sullivan - B.A., University of Northern lowa
Support Services Manager - 1980 (1994)

## Office of Information Management and Analysis

C. R. Thulasi Kumar - B.Tech., S. V. University, India; M.E., Anna University, India; Ph.D., University of Delaware
Director of Information Management and Analysis - 2000

## Office of International Programs

"Timothy E. O'Connor - B.A., M.A., Creighton University; Ph.D. ., University of Minnesota
Assistant Vice President of Academic Affairs for International Programs - 1995
Professor of History - 1982 (1992)
Holly J. Crandall - A.B., University of Rochester, New York; M.A., University of Northern Iowa
Russian Program Administrator - 1997
Robert Pesek - B.A., Miami University, Ohio; M.S., Indiana University; Ph.D., University of Toledo
Director of Culture and Intensive English Program - 2000
Ella A. Sweigert - B.A., Janus Pannonius University, Hungary; M.A., University of Northern lowa
Study Abroad Program Coordinator - 1999

## University Lilbrary

"Marilyn Mercado - B.A., Point Park College; M.L.S., University of Pittsburgh; M.A., University of Northern Iowa
Interim Dean of Library Services - 2000
Associate Professor of Library Science - 1989 (1995)
Ken A. H. Bauer - B.A., University of Northern Iowa
Computer Systems Specialist, Library — 1976 (1989)
Nancy J. Hasenwinkel - B.A., M.A., University of Northern Iowa
Library Associate, Acquisitions - 1993
David Hoing - B.A., University of Northern lowa
Library Associate, Access Services - 1986
Rosemary R. Meany - B.A., University of Northern Iowa
Library Associate, Access Services - 1980 (1994)
Timothy E. Pieper - B.A., University of Northern Iowa
Computer Specialist, Library — 1975 (1999)
Sandra R. Warner - B.A., Western Illinois University
Library Associate, Acquisitions - 1981

## Department of Military Sclence

Michael P. DePuglio - B.S., University of Nebraska-Omaha; M.S., University| of North Dakota-Grand Forks
Lieutenant Colonel and Head of the Department of Military Science - 1999
David A. Combs - B.S., Northeast Missouri State
Captain and Assistant Professor of Military Science - 1997
Anthony W. Cornellius - B.S., Embry-Riddle Aeronautical University
Major and Assistant Professor of Military Science - 1996

## Museum

Sue E. Grosboll - B.A., University of Illinois-Urbana; M.A., Ph.D., University of Wisconsin-Madison
Director/Curator, Museum - 1992
Adjunct Professor of Anthropology
Kay Thuesen - B.S., Western Illinois University
Public Affairs Coordinator - 1997
Terence Q. Vidal - B.A., University of Delaware-Newark; M.S., University of Nebraska-Lincoln
Collections Manager - 1993

## North American Review

Vince F. Gotera - B.A., Stanford University; M.A., San Francisco State
University; M.F.A., Ph.D., Indiana University
Associate Professor of English — 1995 (1997)
Co-editor, North American Review - 2000
"Grant A. G. Tracey - B.A., Trent University, Ontario; M.A., Kansas State University, Ph.D., University of Illinois, Urbana-Champaign
Assistant Professor of English - 1996
Co-editor, North American Review - 2000

## Women's Studies Program

*Phyllis L. Baker - B.A., San Diego State University; M.A., Ph.D., University of California-San Diego
Associate Dean of the College of Social and Behavioral Sciences - 1999
Associate Professor of Sociology - 1990 (1997)
Director of Graduate Women's Studies Program - 1998
*Annette F. Lynch - B.A., M.A., University of Iowa; Ph.D., University of Minnesota
Associate Professor of Design, Family and Consumer Sciences: Textiles and Apparel - 1991 (1999)
Director of Undergraduate Women's Studies Program — 1998

## Division of Educational and Student Services

## Division Administration

Rence C. Romano - B.A., M.S.Ed., Southern Illinois University-Carbondale; Ph.D., Iowa State University
Vice President for Educational Student Services - 1988 (1999)
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 <br> Educational and Student Services

Samuel L. Barr - B.A., Simpson College; M.A., University of Northern Iowa Information Technology Coordinator for Educational Student Services Division - 1985 (2000)

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 and Assistant Professor - 1991

## Academic Advising Services

Reginald J. Green - B.A., Luther College; M.A., MA., University of Northern Iowa Director of Academic Advising Services - 1974 (1993)
Jean M. Nelbauer - B.A., Mercy College of Detroit, M.A., University of Northern lowa
Assistant Director of Academic Advising Services - 1983 (1999)
Karen S. Agee - A.B., A.M., Indiana Univeraity; Ph.D., New Mexico State University
Reading/Learning Strategies Coordinator - 1984
Michael Broshears - B.A., Indiana University; M.S., Miami University
Academic Advisor for Academic Advising Services - 1995 (1998)
David M. Marchesani - B.A., M.A.E, University of Northern Iowa
Academic Advisor for Academic Advising Services - 1999
Vicki Melnick - B.A., Michigan State University; M.S., Western Illinois University
Athletic Academic Advisor for Academic Advising Services - 1997
Michele Peck - B.A., M.S., University of Nebraska-Kearney
Academic Advisor for Academic Advising Services - 1996 (1999)

## Office of Admissions

Clark K. Elmer - B.A., Univernity of Michigan; M.A., Michigan State University
Director of Enrollment Management and Admissions - 1972 (1993)
Jon D. Buse - B.A., M.A.E., University of Northern Iowa
Senior Admissions Counselor - 1992 (1999)
Kelly P. Christensen - B.A., University of Northern Iowa
Transfer Admissions Counselor - 1997
Ronald E. Green - B.A., University of Northern Iowa
Admissions Counselor - 1989
Constance C. Hansen - B.A., University of Northern Iowa
Student Outreach Coordinator - 1989 (1999)
Dennis L. Hendrickson - B.A., M.A., University of Northern Iowa
Associate Director of Admissions - 1971 (1974)
Joanne K. Loonan - B.A., M.A., University of Northern Iowa
Assistant Director of Admissions/Transfer Relations - 1994 (1997)
Kristl T. Marchesani - B.A., University of Northern Iowa
International Admissions Counselor - 1999
Shelloy L. Milks - B.A., Univeruity of Northern Iowa
Campus Visit Coordinator - 1989 (1999)
Germana Nijlm - B.A., College of Saint Catherine
International Services Director - 1970 (1991)
Mark E. Renner - B.A., University of Coloredo; M.S., Univeruity of Arizona
Admissions Systems Coordinator - 1997
Tyann S. Rouw - B.A., University of Northern Iowa
Admissions Counselor/Scholarship Coordinator - 1997
Daniel J. Schofleld - B.A., M.A., University of Northern Iowa
Assistant Director of Admissions/High School Relations - 1985 (1990)
Tyann R. Sheldon - B.A., University of Northern Iowa
Admissions Counselor - 1997
Juanita P. Wright - B.A., University of Northern Iowa
Assistant Director of Admissions/Minority Recruitment — 1975 (1987)
Center for Multicultural Education
Michael D. Blackwell - B.A., Wealeyan University; M.Div,, Yale Divinity School; Ph.D., Boston Univervity
Director for Multicultural Education - 1995

## Financial Aid

Roland Carrillo - B.B.A., St. Mary's University-San Antonio; M.A., University of Teras- San Antonio
Director of Financial Aid - 1987
Adelmo A. Jaramillo - B.S., University of Upper Iowa
Loan Coordinator - 1988 (1999)
Joyce M. Marrow - B.A., M.A.E, University of Northern Iowe
Assistant Director, Scholarships - 1996 (1997)
Brian S. Will - B.A., M.A.E., University of Northern lowa
Assistant Director, Student Employment and Customer Service - 1982 (1992)
Evelyn D. Waack - B.A., Luther College; M.A.T., University of Iowa
Financial Aid Specialist - 1984 (1991)
Ryan J. Williamson - B.A., University of Northern Iowa
Customer Service Specialist - 1998

## Maucker University Union

Janice M. Hanish - B.A., M.A., University of Northern Iowa; Ph.D., University of Iowe
Director of Maucker Union and Student Activities - 1977 (1998)
Bryan L. Beardsley - A.A., Kirkwood Community College; B.A., University of Northern lowa
Operations Manager - 1988 (1996)
James Egll - B.A., Buena Vista University
Program Coordinator - 1988 (1998)
Shelley R. Pruess - B.A., University of Northern Iowa
Business and Retail Manager - 1995 (1998)
Guy A. Sims - B.S., Lincoln University, Pennsylvania; M.Ed., Beaver College; M.A., National University

Assistant Director for Student Activities - 1996
Megan Vadnals - B.S., Buena Vista University; M.S., Minnesota State University-Mankato
Coordinator Student Organizations and Activities - 1998

## The Career Center

Muriel B. Stone - B.M.E., Morningside College; M.A, Governor's State University
Director of The Career Center - 1988
Jassica Cook - B.An, University of Northern Iowa
Employer Relations Coordinator - 1999
Phil Jordan - B.A., University of Minois; M.A., Upper Iowa University
Cooperative Education Coordinator - 1998
Mark McGuire - B.A., Univerrity of Northem Iowa; M.S., Southern Illinois University
Assistant Director of Placement - 1998
Laura Praglin - B.A., Connecticut College; M.A.R., Yale University; M.A., Ph.D., University of Chicago
Career Development Coordinator - 1999
Tracey Roling - B.A., Cornell College; M.A.E, University of Northern Iowa Assistant Director of Education Placement - 1996
Susan M. Schwleger - B.S., M.S., Illinois State University, M.A., University of Northern Iowa
Associate Director of General Placement - 1989 (1996)
C. Sue Sherbet - B.A., Vennard College; M.A., Northeast Missouri State University
Associate Director of Education Placemen - 1993 (1996)
Allan J. Stamberg - B.S., Western Mich gan University; M.A., Appelachian State University, M.A., U.S. Naval Wa, College
Cooperative Education Director - 1976
Ellzabeth T. Vanderwall - B.F.A., Drake University
Placement Fair Coordinator - 1988 (1991)
D. Isabela Varela - B.A., University of Minnesotas M.A., University of Iowa; M.A., University of Northem Iowa

Career Information Specialist - 1991 (1996)
Donna E. Vinton - B.A., University of Northem lowa; Ph.D., University of Iowa
Associate Director of Career Services - 1989 (1996)

## Office of the Registrar

Phillp L. Patton - B.A., M.A., University of Northern Iowa
Registrar - 1972 (1991)
Douglas D. Koschmeder - B.A., M.A.E., Univeraity of Northern Iowa
Associate Registrar - 1986 (1995)
Patti J. Rust - B.A., M.B.A., University of Northem Iowa
Associate Registrar, Student Systems and Services - 1988 (1998)

## Department of Residence

Robert A. Hartman - B.S., M.A., Ball State University
Director of Residence - 1977 (1994)
Troy Affson - B.S., Bemidji State University; M.S., University of WiscomainPlatteville
Hall Coordinator - 1997
Byan Barthman - B.A., University of Northem Iowa
Assistant Dining Unit Manager - 1999
Patricia Beck - B.S., lowa State University; M.B.A., University of Northern Iowa
Assistant Director of Residence/Marketing - 1999

## Administrative Staff

Robert Coyle - B.F.A., Wayne State University
Assistant Dining Unit Manager - 1999
Treva Crawford - B.A., University of Northern Iowa
Assistant Manager, Catering - 1998
Gary C. Daters - B.A., University of Northern Iowa
Residence Business Manager - 1973 (1978)
Margaret J. Emple - B.S., University of Wisconsin-Stout; M.B.A., University of Northern lowe
Assistant Director of Residence/Dining Catering Manager - 1980 (1989)
Bradley Fletcher - B.A., University of Northern Iowa
Assistant Manager - 1998
Carol L. Fletcher - B.A., University of Northern lowe
Assistant Director of Residence/Residential Dining - 1988 (1999)

## Ellse Frohn

Dining Unit Manager - 1999
Daniel J. Gleissner - B.S., University of Wisconsin-Stevens Point; M.A., Ball State University
Assistant Director of Residence/Facilities - 1980

## Jacqueline Grieger

Manager, Custodial Services - 1995
Elisabeth J. Hageman - B.A., University of Northern Iowa
Assistant Dining Unit Manager - 1985
Regina Jorgensen - B.S., Iowa State University
Assistant Dining Manager - 1996
Jeanne Keyser - B.A., M.S., University of Nebraska-Kearney
Hall Coordinator - 1997
Lisa Krausman - B.S., University of Northern Jowa
Administrative Dietitian - 1999
W. Anthony Lake - B.A., Central Michigan University, M.S. Central Missouri State University
Hall Coordinator - 1997
Rosanne L. Lang - B.A., University of Northern Iowe
Dining Unit Manager - 1985 (1993)
Barbara LaPlume - B.S., Upper Iowa University
Assistant Manager, Catering - 1998
Matthew Laurich - B.A., University of Northern Iowa
Assistant Manager, Catering - 1998
Nancy Lindgard - B.A., Buena Vista University
Office/Technology Coordinator - 1989 (1998)
Drake E. Martin - B.J., University of Texas-Austin; M.A., Bowling Green State University
Assistant Director of Residence Eduction - 1981
Deb McConahie - B.A., Augustana College; M.A., University of NebraskaLincoln
Hall Coordinator - 1998
Ramona K. Millus - B.A., M.B.A., University of Northern Iowa
Associate Director of Residence/Dining - 1980 (1987)
Julie Miller - B.A., University of Northern Jown
Assistant Dining Unit Manager - 1998
Sarah Miller - B.A., University of Northern lowe
Catering and Conference Coordinator - 1993 (1998)
Jane E. Moen - B.M., B.S., University of South Dakota-Vermillion; M.S., Iowe State University
Complex Coordinator - 1986 (1993)
Micheel Moore - B.S., Truman State University
Catering Manager - 1999
Lisa Mueller - B.A., Gustavus Adolphus College; M.S., Minnesota State University- Mankato
Hall Coordinator - 1999
David Peerman - B.T., University of Northern Iowa
Assistant Manager/Plant Services - 1997
Lynn S. Perigo - B.A., M.A., University of Northern Iowa
Manager/University Apartments - 1989
Krista Prather - B.A., M.A.E., University of Northern Iowe
Hall Coordinator - 1999
Lyn Redington - B.S., M.S., Iowa State University
Associate Director of Residence/Housing - 1994
Wendy Rezab - B.A., Univeraity of Northern Iowa
Assistant Manager, Catering - 1999
Russell R. Rolinger - B.S., Florida State University
Assistant Dining Unit Manager - 1989
R. Kent Ruby - B.S., Northwest Missouri State University

Technology Coordinator, Dining - 1967 (1980)
Angela Sudler - B.A., University of Northern Iowa
Dining Unit Manager - 1997 (1999)
David Schmid - B.B.A., University of Wisconsin-Whitewater; M.S.,
Oklahoma State University
Hall Coordinator - 1998
Gale K. Secor - B.A., University of Northern Iowe
Food Stores Manager - 1990 (1996)
Mary T. Ubtanski - B.A., College of St. Scholastica-Duluth
Bakery and Retail Sales Manager - 1989 (1993)
Dorothy M. Van Helten - B.S., Iowa State University
Assistant Dining Unit Manager - 1982
Kate Winne - B.S., Ball State University, M.S., University of Nebraska-Kearney
Hall Coordinator - 1999
Douglas Woodley - B.A., University of Iowa; MHRD, Clemson University
Hall Coordinator - 1997
Catherine E. Wylam - B.S., University of Northern Iowa
Technology Coordinator/Dining - 1989 (1997)
Cerolyn M. Young - BA., University of Northern lowa
Dining Unit Manager — 1984 (1987)
Rebecea Young - B.A., University of Northern Iowa
Assistant Dining Unit Manager - 1997

## University Health Services

Kathleen M. Gulick - B.A., M.A., University of Northern Iowa
University Health Services Director - 1989 (2000)
Shannon D. Bennett - B.S., University of Osteopethic Medicine
Physician Assistant - 1997
Nancy A. Clark - B.A., M.A., Washington State University
Personal Fitness Coordinator - 1997
Jergene M. Delaney - R.N., Hawkeye Institute of Technology, B.A., University of Northern Iowa
Staff Nurse - 1991
Christopher 8. Denison - B.A., University of Oregon; M.A., University of Northern Iowa
Informal Recreation and Aquatics Coordinator - 1997
Gina I. Ellingson - B.S., University of Iowa College of Medicine
Physician Assistant - 1995
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
Dana A. Foster - B.A., University of Northem Iowa
Instructional Program Coordinator - 1993 (1997)
Paula J. Gilroy - B.S., M.S., Shippensburg University, Ed.D., West Virginia University
Psychologist - 1988 (1995)
Lewis B. Handen - D.M.D., Harvard School of Dental Medicine; M.D., University of Iowa Medical School
Staff Physician - 1994 (2000)
Kenneth E. Jacobsen - B.A., Dana College; M.C., Arizona State University; Ph.D., University of Missouri-Columbia
Wellness Consultant/Counselor - 1979 (1995)
Kristine M. Jorgensen - R.N., Allen School of Nursing
Staff Nurse - 1997
Cynthia L. Klatt - B.A., Central College
Intramural Sports Coordinator - 1993 (1997)
Mmothy H. Klatt - B.A., Central College; M.A., University of Northern lowa
Associate Director, Recreation and Sport Club Coordinator - 1983 (2000)
James A. Langel - B.A., University of Iowa; M.A., University of South Dakota
Associate Director, Facilities and Operations - 1997 (2000)
Andrew K. Martin - B.A., Sam Houston State; M.A., Middle Tennessee State Outdoor Recreation Coordinator - 1997
Ann H. McRae - R.N., Lynn Hospital School of Nursing; B.A., University of Northern Iowa
Nursing Coordinator - 1988 (1997)
Linda K. Miller - L.P.N., Hawkeye Community College; B.A., University of Northern lowa
Wellness Resource Coordinator - 1997

Jennifer K. Murra - B.A., M.A., University of Northern Iowa
Counselor - 1999
Jacqueline J. Slykhuis - B.A., Stephen F. Austin State University; R.N., Allen School of Nursing
Coordinator Disability Services - 1986 (1996)
Joan A. Thompson - L.P.N., Rochester School of Practical Nursing: B.A., University of Northern Iowa
Health Aid Coordinator/Health Educator - 1982
Julis A. Thompson - B.A., University of Northern Iowa; M.A., Stephen F. Austin State University
Substance/Sexual Abuse Services Coordinator - 1992 (1997)
David C. Towle - B.A., M.A., University of Northern Iowa; Ph.D., University of Missouri-Columbia
Counseling Director - 1998
Donald G. Willams - B.A., University of South Florida
Health Service Administrator - 1996
Deginesh Worku - B.A., Augsburg College-Minneapolis; M.A., University of Northern Iowa
Counselor - 1997

# 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 lowa
Budget Director and Assistant Vice President - 1977 (1990)
Kelly A. Fiege - B.S., Boston College
Operations Improvement Director - 1999
Douglas R. Jenson - B.B.A., University of Iowa
Assistant to the Vice President for Administration and Finance - 1989
Marty Mark - B.A., University of Northern Iowa
Information Technology Coordinator - 1989 (1998)
Cheryl D. Moses
Information Technology Specialist - 1976 (1999)
Mary J. Prenosif - 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

## Jennifer C. Hansmann

Administrative Assistant - 1986 (1997)

## Intercolleglate Athletics and UNI- <br> Dome Administration

Rick Hartzell - B.A., M.A., University of Northern Iowa Director of Athletics - 1999
Iradge Ahrabi-Fard - B.A., M.A., University of Northern Iowa; Ph.D., University of Minnesota
Professor in School of Health, Physical Education and Leisure Services
Head Volleyball Coach - 1972 (1981)
Robert Anderson - B.S., University of Wisconsin-LaCrosse
Assistant Sports Information Director - 1998
Meredith L. Bakley - B.S., Black Hills State College; M.S., Colorado State University
Instructor in School of Health, Physical Education, and Leisure Services
Head Softball Coach - 1978
Thomas S. Bardal - B.A., Mankato State University
Assistant Men's Basketball Coach - 1998
Steve Beard - B.A., University of Northern Iowa
Assistant Football Coach - 1997
John J. Bermel - B.A., Central College
Head Men's Golf Coach - 1995

Nancy A. Bowers - B.S., Iowa State University, M.S., St. Cloud State University
Instructor in School of Health, Physical Education, and Leisure Services
Assistant Athletic Trainer - 1993
Julie A. Bright - B.A., University of Northern Iowa
Associate Director of Athletics - 1975 (1985)
Christopher E. Bucknam - B.S., Norwich University; M.A., University of Northern Iowa
Head Men's/Women's Track and Cross Country Conch - 1979 (1984)
Kevin C. Buisman - B.A., M.B.A., University of Northern Iowa
Associate Director of Athletics - 1989 (1993)
Douglas A. Cass - B.A., University of Northern Iown
Assistant Men's/Women's Track and Cross Country Couch - 1999
Darryl P. Conway - B.S., University of Delaware, M.A., Adolphi University
Head Athletic Trainer - 1999
Gregory A. Davies - B.A., University of Northern Iowa; M.S.S., United States Sports Academy
Ticket Manager - 1999 (2000)
Anthony B. DiCecco - B.S., Upper Iowa University
Head Women's Basketball Coech - 1995
Michael L. Dunbar - B.S., University of Weshington; M.A., Pacific Lutheran University
Head Football Coach - 1997
Todd Eagen - B.A., M.A., University of Northern Iowa
Assistant Football Coach - 1997
Matthew J. Gege - B.S., University of Northern Iowa; M.S., Eastern Kentucky University
Assistant Athletic Trainer
Instructor in School of Health, Physical Education, and Leisure Services - 1999
Luster Goodwin - B.A., Univervity of Texas-El Paso
Assistant Men's Basketball Coach - 2000
Steven J. Hamilton - B.S., Iowa State University
Assistant Wrestling Coach - 1997
Christopher Hedden - B.A., Heidellberg University
Assistant Football Coach - 1997
Colleen A. Heimstead - B.A., Southern Illinois Univeraity
Assistant Women's Basketball Coach - 1992 (1994)
Rick D. Heller - B.S., Upper Iowa University
Head Baseball Coach - 1999
Nancy A. Justis - B.A., University of Iowa
Director of Sports Information - 1974 (1984)
Jayson P. Kaiser - B.A., Bethany College; M.S.Ed., Northwest Missouri State University
Assistant Football Coach - 1999
Kevin C. Kane - B.A., University of Northern lowa
Assistant Director of Sports Information - 1988
Head Women's Golf Coach - 1994

## David A. Kohrs

UNI-Dome Facilities Coordinator - 1977 (1989)
James B. Kramer - B.S., University of Wisconsin-LaCroses; M.S., Appalachian State University
Head Strength and Conditioning Coach - 1997
Daniel P. May - B.A., M.A, Brigham Young University
Head Men's/Women's Swimming Coach - 1999
Vicki R. Melnick - B.A., Michigan State University; M.S., Western Illinois University
Athletic Acedemic Advisor for Academic Advising Services - 1997
Rick Neison - B.A., University of Northem Iowa
Assistant Football Coach - 2000
Jay Niemann - B.S., Iowa State University; M.A., Western Washington University
Assistant Football Coach - 1997
Steven P. Nurse - B.A., University of Northern Iowa
Equipment Manager - 1993
Brad Penrith - B.S., University of Iowa
Assistant Wrestling Coach - 1997
Roberta J. Petersen - B.A., M.A., University of Northern lowa
Assistant Volleyball Coach - 1995
Eric F. Rebhuhn - B.A., Concordia College
Head Men's/Women's Tennis Coach - 1997 (1998)

Administrative Staff

Todd M. Rima - B.A., University of Northern lowa
Assistant Baseball Coach and UNI-Dome Administrative Assistant - 1998
Ronald W. Smith - B.S., Illinois State University, M.S., Southern Illinois University
Assistant Men's Basketball Coach - 1998
Eric B. Tyler - B.A., University of Richmond
Director of Marketing and Promotions - 1998
Sloane R. Tyler - B.A., Morningside College; M.S.Ed., Old Dominion University
Director of Athletic Development - 1998 (2000)
Tanya E. Warren - B.S.W., Creighton University
Assistant Women's Basketball Coach - 1995
Sam Weaver - A.A., Three Rivers Community College; B.S., Henderson State University; M.S., Southeast Missouri State
Head Men's Basketball Coach - 1998
Kelley L. Westhoff - B.A., University of Northern Iowa
Assistant Women's Basketball Coach — 1997 (1999)
Christopher Whitmore - B.S., Montana Tech
Assistant Football Coach - 1999
Sandra C. Williamson - B.S., M.S., Eastern New Mexico University; Ed.D., University of Northern Colorado
Associate Director of Athletics - 1978 (1980)
Heather Woody - B.A., University of Northern Iowa
Athletic Development Coordinator - 1998 (1999)
Paul Zakowski - B.A., University of Wisconsin-Eau Claire; M.S., Western Illinois University
Athletic Sales Coordinator - 1996
Jeffery Zenisek - B.A., M.A., Central Washington University
Assistant Football Coach - 1997

## Controller's Office

Gary B. Shontz - B.B.A., University of lowa; M.A.E., Ed.S., University of Northern lowa
Controller and University Secretary - 1974 (1976)
Denise H. Bouska - B.A., University of Northern Iowe
Accountant - 1993 (1997)
Linda K. Gruetzmacher - B.S., University of Ilinois; B.S., University of Washington
Payroll Manager - 1988 (1991)
Brian T. Looby - B.B.A., University of Wiscossin-Eau Claire
Bursar - 1988
Bruce A. Rieks - B.A., University of Northern lowa
Assistant Controller and Chief Accountant - 1979 (1985)
Bryan M. Segerstrom - B.A., Cedarville College
Accounting Manager - 1988

## Facillities Planming

Morris E. Mikkelsen - B.Architecture, B.S., M.S., Iowa State University
Director of Facilities Planning, and University Architect - 1983 (1991)
Brent A. Ascher - B.T., University of Northern Iowa
Project Coordinator/Inspector - 1998
Bill Boinwell - B.S., Colorado State University
Project Manager/Inspector - 1993 (1997)
Carol Christopher - B.S., University of Northem Iowa
Planner/Interior Design Services - 1999
Douglas G. LoveJoy
Project Manager/Engineering Planner - 1977 (1996)
John Mirchich - B.S., Pennsylvania State University
Associate Director of Construction Administration - 1999
William D. Nelson - B.A., B.S., Iowa State University
Associate Director of Architectural and Engineering Services - 1999
Steven E. Pavelec
Project Coordinator/Inspector - 1998
C. George Pavelonis - B.S., Southern Illinois Univeraity

Coordinator of Interior Design Services - 1985
John Streicher - B.S., Univeraity of lowa
Senior Facilities Engineer - 1999
Glenn Swanson - B.A., lowa State University
Architect - 1999

Douglas VanCamp - B.M., Indiana University; M.M., DePaul University;
M.B.A., University of South Florida

Facilities Information Manager - 1992 (1997)
Michael W. Zwanziger - B.A., B.T., University of Northern lowa
Facilities Planner Coordinator - 1998

## Human Resource Services

Nick Bambach - Bs, Central Michigan University, M.A., Ball State University Director of Human Resource Services - 1999
June Watkins - B.S., M.A., Upper Iowa University
Associate Director of Human Resource Services - 2000
Liz Cook - B.A., University of Northern lowa
Human Resource Services Benefits Coordinator - 1989 (1997)
Eileen F. Dams - B.A., University of Northem Iowa
Human Resource Information System Coordinator - 1982 (1995)
Jan Flick - B.S., lowa State University
Human Resource Services Benefits Coordinator - 1998
Kim Schares - B.A., University of Northern Iowa
Human Resource Coordinator/Professional and Scientific - 1998
Regina Smith - B.S., Southern Illinois University
Human Resource Services Generalist - 1999
Michelle Whitehill - B.A., University of Northern Iowa
Human Resource Services Generalist - 1999

## Physical Plant

## Administration

Dean A. Shoars - B.A., Parsons College; M.A., University of Northern Iowa
Director, Physical Plant and Director, Public Safety - 1987 (1997)
Dennis Hayes - B.A., Upper Iowa University
Operations Administrator - 1997
Cynthia S. Houlson - B.A., M.A., University of Northern Iowa
Plant Safety/Human Resources Coordinator - 1998

## Campus Services

William T. Mckinley - B.A., University of Northern Iowe
Manager, Campus 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)
Alvin J. Kyhl
Manager, Transportation Services - 1971 (1985)
lack H. Shafer
Assistant Manager, Building Services - 1987 (I997)
Terry L. Sheerer
Manager, Grounds/Landscaping - 1982 (1997)

## Energy Conservation

Thomas J. Richtsmeier - B.S.M.E., Iowa State University Utility/Energy Engineer — 1982 (1989)

## Operations and Maintenance <br> Paul E. Meyermann - B.S., Iowa State University

Manager, Operations and Maintenance - 1985 (1995)
David M. Andersen - A.A.S., Hawkeye Institute of Technology
Manager, Architectural and Electrical Maintenance - 1979 (1989)
Scott J. Hall - A.Se, North Iowa Area Community College
Manager, Plumbing and Steam Maintenance - 1977 (1985)
Darrell R Hansen
Maintenance Contract Coordinator - 1982 (1993)
John J. Perry
Manager, HVAC and Area Maintenance - 1980 (1989)
Delmar J. Sherwood
Maintenance Support Coordinator - 1967 (1993)

## Utility and Power Plant

Charles F. Fosselman - B.S., Upper Iowa University
Manager, Power Plant Maintenance - 1972 (1998)

## Public Safety

Dean A. Shoars - B.A., Parsons College; M.A., University of Northern lowa Director, Physical Plant and Director, Public Safety — 1987 (1997)
David J. Zarifis - A.A.S., Hawkeye Institute of Technology; B.A., M.A., University of Northern Iowa
Associate Director of Public Safety - 1988 (1997)

## Ronald K. Bigelow

Safety Coordinator - 1998
Erwin W. Richter - B.A., Northern Michigan University, M.A., University of
Northern Iowa; Ph.D., University of lowa
Radiation/Chemical Safety Officer - 1998

## Purchasing

## Roxanne Conrad

Director of Purchasing Services - 1968 (1986)
Steven W. Cutsforth - B.A., University of Northern Iowa
Purchasing Agent - 1974 (1989)
Charles L. Neil - B.B.A., Western Illinois University Purchasing Agent - 1991

## Division of University Advancement

## Division Administration

William D. Calhoun, Jr. - B.A., Hiram College, Ohio; M.A., University of Northern Iowa
Vice President for University Advancement/President, UNI Foundation - 1981 (1999)

Jean A. Carlisle - B.A., M.A., University of Northern Iowa
Administrative Assistant - 1984 (1989)
Secretary, UNI Foundation (1999)

## Office of Alumni Relations

Noreen M. Mermansen - B.S., Oklahoma College of Liberal Arts; M.A.E., University of Northern Iowa Director of Alumni Relations
Secretary of Alumni Board
Executive Director of Northern Iowa Alumni Association - 1968 (1988)

## 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
Mead V. Hardy - B.S., Winona State University
Athletic Camp Coordinator - 1999
Jennifer S. Yarrow - B.A., University of Northern Iowa
Conference Coordinator - 1997

## Office of Development

Susan Bettis - B.A., University of Northern Iowa
Foundation Accountant - 1998
Vicki L. Collum - B.A., Upper Iowa University
Grantwriter/Facilitator - 1998
Diane C. Curtis - B.A., Malone College; M.A., University of Iowa
Director of Development, College of Humanities and Fine Arts - 1997
Amy E. Davls - B.A., Clarke College
Director of Development, College of Natural Sciences and College of Social and Behavioral Sciences - 1997

Ann Dolphin - B.A., Wartburg College
Foundation Accountant - 1999
Linda Emery - B.A., University of Northern Iowa
Assistant Director of Annual Giving - 1999
Frank L. Esser - B.A., M.A., University of Northern Iowa
Director of Collegiate Development - 1995 (1999)
Kristi J. Even - B.A., University of Northern Iowa, C.P.A.
Director of Accounting — 1994 (1997)
Co-Treasurer of the UNI Foundation - 1999
Ronald E. Giddings Jr. - B.A., University of Northern Iowa
Researcher - 1997
Michael B. Hoy - B.A., University of Northern Iowa
Advancement Systems Administrator - 1997
John A. McCarty - B.A., William Penn College
Director of Gift Planning- 1996
Sara E. Mehlin - B.A., University of Iowa
Director of Development, College of Business Administration - 1997
Eldon Miller - B.S., M.A., Wittenberg University
Special Assistant to the Vice President - 1986 (1998)
Julie M. Pontasch - B.S., Bowling Green State University
Director of Development, College of Education - 1996 (1997)
Ruth E. Ratliff - B.A., St. Olaf College; M.A., Ph.D., University of Iowa
Director of Central Development/Vice President of the UNI Foundation - 1976 (1999)

Susan J. Reinart - B.A., University of Northern Iowa
Stewardship Coordinator - 1999
Keevan Sweeney - B.A., University of Iowa
Director of Special Gifts - 1997 (1999)
Sloane R. Tyler - B.A., Morningside College; M.S.Ed., Old Dominion University
Director of Athletic Development - 1998 (2000)

## Office of Public Relations

Gerald V. Anglum - B.A., University of Northern Iowa
Interim Director of Public Relations - 1989 (1999)
Stacey Christensen - A.A. Rochester Community College; B.A., Wartburg College
Community Relations Manager - 1999
Gwennette Culpepper - B.A., Iowa State University
News and Editorial Services Manager - 1992 (1999)
Barbara J. Erickson - B.A., M.A., University of Northern Iowa
Marketing and Operations Coordinator, Teleproduction Center - 1992 (1996)
Vicki S. Grimes - B.A., University of Iowa
News and Information Coordinator - 1970 (1999)
Paul C. Kaufmann - B.A., Iowa State University
Producer/Director, Teleproduction Center - 1991 (1996)
Denton Ketels - B.A., University of Northern Iowa
Publications Editor - 1999
Elizabeth Conrad LaVelle - B.A., Lawrence University, Wisconsin; M.A., Western Michigan University
Art Director/Designer — 1977 (1990)
James E. O'Connor - A.A.S., Community College of the Air Force; B.A., University of Northern Iowa
Media Relations Director - 1999
DeWayne D. Purdy - B.S., Upper Iowa University
Electronic Communications Manager - 1996 (1999)
Audrey L. Stickrod - B.F.A., East Texas State University
Graphic Designer - 1997
Lyle G. VandenHull - B.A., University of Northern Iowa
Manager of Printing and Mailing Services - 1990 (1992)
William G. Witt - B.A., University of Northern Iowa
Photo Journalist - 1980 (1986)

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 and 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: Elementary, Middle School/Jr High School Education - 1967 (1990)
H. Wendell Ahford - B.A., John B. Stetson University; B.D., Southwestern Baptist Theological Seminary; B.S.L.S., North Texas State University
Associate Professor of Library - 1959 (1986)
Assistant Director of Technical Services of the Library - 1959 (1986)
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 (1997)
Head of the Department of Philosophy and Religion - 1993-1997
B. Wylie Anderson - B.A., M.A., University of Northern Colorado; M.A.,

University of Denver; Ph.D., University of Iowe
Professor of Economics - 1966 (1999)
James D. Anderson - B.S., M.S., Eastern Illinois University
Assistant Profescor of Physical Education - 1965 (1992)
Ruth B. Anderson - B.A., University of California-Berkeley, M.S.W., Columbia University
Professor of Social Work - 1969 (1990)
Wayne I. Anderson - B.A, M.S., Ph.D., Univensity of Iowa
Professor of Geology — 1963 (2000)
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 and Foundations - 1971 (1987)
Diane L. Baum - B.A., M.A., University of Northern Iowa
Assistant Professor of Mathematics - 1964 (1997)
Russell N. Baum - B.M., M.M., Eastman School of Music, University of Rochester
Professor of Piano - 1938 (1981)
James Edward Becker — B.A., Cornell College; M.A., University of ParisSorbonne
Associate Professor of Teaching: Foreign Language - 1970 (1999)
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, Ilinois; B.D., Chicago Lutheran Theological Seminary; Ph.D., University of Chicago
Director of the Bureau of Religious Activities
Professor of Religion — 1949 (1974)
Hugo L. Beykirch - B.A., M.A., Ph.D., Wayne State University
Associate Professor of Audiology - 1974 (1999)
Gerald D. Bisbey - B.A., University of Northern Iowa; M.S., Iowa State University, Ph.D., University of Iowa
Coordinator of Institutional Studies - 1964 (1992)
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)
Myra R. Boots - B.A., Grinnell College; M.A., University of Northern lowa Assistant Professor of Speech-Language Pathology - 1965 (1995)
Ronald D. Bro - B.A., M.A., University of Northem Iowa; Ed.D., University of Nebraska
Profeseor 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)
John E. Bruha - B.S., University of Wisconsin-Stevens Point; M.S., University, of Wisconsin-Madison
Assistant Professor of Mathematics - 1959 (1997)
Kenneth G. Butzier - B.A., University of Northern Iowa; M.S., Univeraity 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. Chabart - 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 I'Universite de Paris (Sorbonne)

Professor of French - 1961 (1983)
James C. Chang - B.S., Mount Union College, Ohio; Ph.D., University of Califomia-Los Angeles
Professor of Chemistry - 1964 (1995)
Hs-Ling Cheng - B.Law., National Chengchi University, China; M.A., Columbia University
Assistant Professor of History - 1966 (1995)
Bruce A. Chidester - B.M., Augustana College, Illinois; M.M., Northern Illinois University
Assistant Professor of Music in General Studies - 1969 (1999)
Meh-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 and Bibliographer - 1971 (1985)
Ronald A. Chung - B.S., Holy Cross College; M.S., Ph.D., Purdue University
Professor of Design, Family and Consumer Sciences: Nutrition and Food Science - 1986 (1999)
Roy Chung - B.A., M.A., University of Wisconsin-Madison
Associate Professor of Geography and Demography - 1958 (2000)
Robert E. Clark - B.A., Oklahoma State University; M.A., University of Oklahoma; Ph.D., University of Nebraska
Assistant Professor of Geography - 1965 (1999)
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)
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 (1997)
R. Forrest Conklin - B.A., Howard Payne College; M.A., Baylor University; Ph.D., Ohio University
Professor of Communication Studies - 1968 (1997)
Lee E. Courtnage - B.A., Nebraska State Teachers College; M.A., Colorado State College; Ed.D., University of Northern Colorado
Professor of Special Education - 1968 (1994)
Elinor Ann Crawford - B.A., M.A., University of Califomia-Berkeley; Ph.D., University of Oregon
Professor of Physical Education for Women
Head of the Department of Physical Education for Women - 1949 (1979)
John S. Cross - B.S., M.S., University of Illinois-Urbana
Assistant Professor of Mathematics - 1963 (1999)
David R. Crownfield - A.B., Harvard University; B.D., Yale University; Th.M., Th.D., Harvard University
Professor of Philosophy and Religion - 1964 (1998)
Eleanor B. Crownfield - B.A., Smith College; M.S.L.S., Simmons College
Assistant Professor and Catalog Librarian - 1964 (1996)
Donald G. Cummings - B.A., Coe College; Ph.D., Tulane University
Assistant Professor of Economics - 1963 (1998)
Barbara J. Darling - B.A., University of Northern Iowa; M.A., University of Northern Colorado
Associate Professor of Physical Education - 1958 (1985)
George F. Day - B.A., Dartmouth College; M.A.T., Harvard University; Ph.D., University of Colorado
Professor of English - 1967 (1994)

Charles V. Dedrick - B.A., Brown University; M.A.T., Rollins College; M.Ed., Ed.D., University of Florida
Professor of Educational Psychology and Foundations - 1971 (1999)
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. Delaffeld - B.F.A., M.A. Ph.D., Ohio State University
Professor of Art - 1951 (1982)
Ervin A. Dennis - B.A., M.A., University of Northern Colorado; Ed.D., Texas A\&M University
Professor of Industrial Technology - 1973 (1998)
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 Mlinois
Associate Professor of Teaching: Educational Media - 1957 (1990)
Saul L. Diamond - B.S., Syracuse University; M.B.A., Wharton School of Business, University of Pennsyivania
Associate Professor of Marketing - 1967 (1991)
Director of the Small Business Institute
Douglas D. Doerzman - B.A., M.A., University of Northern lowa
Assistant Professor of Teaching
Coordinator of Student Teaching - 1967 (1992)
Henry T. Dohrman - A.Bon Nebraska State Colleges S.T.B., Ph.D., Harvard University
Professor of Sociology, Anthropology and Social Work — 1949 (1982)
Susann G. Doody - B.S., Northern Illinois University; M.S., University of Wisconsin; Ph.D., University of Southern California
Professor of Physical Education - 1977 (2000)
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., Kanses 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)
Darlyce A. Drum
Administrative Assistant, Vice President for Administration and Finance 1957 (1997)
Jorry M. Duea - B.A., M.A., Univeruity of Northern Iowa; Ph.D., Iowa State University
Professor of Educational Psychology and Foundations - 1966 (1997)
Coordinator, Research and Evaluation Studies - 1992-1997
Joan M. Duea - B.A., M.A., University of Northern Iowa
Professor of Teaching: Elementary Education - 1965 (1997)
Ann Mary Dunbar - B.A., Clarke College; M.A., Ed.S., University of Northern Iowa
Associate Professor of Educational Psychology and 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. Ebien - B.A., Williams College; M.A., Wichita State Univeraity; 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)
Ivan L. Eland - B.A., University of Northern Iowa; M.A, University of Colorado
Associate Professor of Education: Safety
Director of Safety Education - 1960 (1989)
Robert Eller - B.A., M.A., University of Lowa
Assistant Professor of Educational Technology
Coordinator of Audio-Visual Services - 1961 (1991)

Ralph D. Engardt - B.S., Ph.D., Iowa State University
Associate Professor of Physics - 1965 (1995)
Harlay E. Erickson - B.S., Wisconsin State University-LaCrosse; M.S., Ph.D., Univeraity of Wisconsin
Professor of Educational Psychology and Foundations - 1963 (1987)
Donald R. Erusha - B.A., Coe College; M.A., University of Iowa
Associate Professor of Physical Education - 1963 (2000)
Russell E. Euchner - B.A., M.A., University of Northem Iowa
Assistant Professor of Education: Elementary - 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 lowa
Professor of Spanish - 1967 (1984)
D. Louls Finsand - B.S., University of Wisconsin-LaCrosse, M.A., University of Northern Iowa
Professor of Teaching: Science Education - 1964 (1997)
Louise C. T. Forest - B.A., M.A., Bryn Mawr College; Ph.D., Yale University Professor of English — 1948 (1983)
Adolfo Mariano Franco - B.A., Instituto de Cardenas, Cuba; Doctor in Law, Universidad de la Habana, Cuba; M.A., Ph.D., University of lowa
Professor of Spanish - 1967 (1993)
Mary L. Franken - B.S., University of Wisconsin-Stout; M.S., University of Wisconsin- Madison; Ed.D., Drake Univeraity
Professor of Design, Family and Consumer Sciences: Family Services - 1969 (1998)

Joseph E. Fratianni - B.S., Bridgewater State College; M.S., Ph.D., University of Wisconsin-Madison
Assistant Professor of Teaching
Coordinator of Student Teaching - 1971 (1991)
Amold J. Freltag - B.S., Purdue University, M.S., Iowa State University
Assistant Professor of Industrial Techmology - 1968 (1991)
Gail E. Froyen - B.A., M.A., Univerxity of Northern Iown
Instructor of Teaching: Educational Media - 1990 (1998)
Len A. Froyen - B.A., Univerrity of Northern lowa; M.A., Mighican State University; Ed.D., Indiana University
Professor of Educational Psychology \& Foundations - 1958 (1994)
Sarah Frudden - B.A, M.A, Ed.S., University of Northern Iowa; Ph.D., lowa State University; Ph.D., University of Wisconsin-Madison
Assistant Professor of Teaching and Coordinator of Student Teaching - 1974 (1992)

Joyce A. Gault - B.A., University of Northern Iowa; M.M., D.M., Northwestern University
Professor of Piano - 1957 (1993)
Charies C. Gillette - B.S., Iowa State University, M.A., University of Northerm Iowa; Ph.D., Oklahoma State University
Associate Professor of Economics - 1966 (1991)
Robert F. Gish - B.A., M.A. Ph.D., University of New Mexico
Professor of English — 1967 (1999)
George David Glemn - A.B., Shimer College; M.A., Northem Illinois University; Ph.D., University of Illinois
Professor of Theatre - 1966 (2000)
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 Califomin-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 Libracy
Assistant Director of Public Services - 1967 (1990)
Elton E. Green - B.S., M.S., Kansas State University, Ed.D., University of Northem Colorado
Professor of Phyrical Education - 1968 (1990)
Kenneth N. Green - B.S., Iowa State University; M.A., University of Northern lowa; Ed.D., University of Arkansas
Associate Professor of Physical Education - 1967 (2000)
Wanda K. Green - B.A., M.A., Ed.D., Univerxity of Northern Colorado
Assistant Professor of Physical Education - 1967 (1998)

Mitchell A. Grean. Jr. - B.A., Dillard University, M.S., Case Western
University; Ph.D., University of lowa
Assistant Professor of Social Work — 1972 (1993)
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)
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 (1998)
Gaylon L. Halverson - B.A., Luther College; M.A., University of Northern Iowa; D.B.A., Indiana University; CPA
Professor of Accounting - 1963 (1997)
Albert C. Haman - B.A., University of Iowa; M.A., Michigan State University
Associate Professor of Biology — 1961 (1988)
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 Business Education - 1966 (1990)
Jon Edward Hansen - B.A., M.A., University of Northern Iowa
Associate Professor of Trombone - 1969 (1993)
Thomas W. Hansmeier - B.A., M.A., University of Northern Iowa; Ed.D., Michigan State University
Professor of Educational Administration and 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 lowa; Ed.D., University of Wyoming
Professor of Educational Administration and Counseling - 1966 (1986)
Roger J. Hanson - B.S., Gustavus Adolphus College; M.A., Ph.D., University of Nebraska
Professor of Physics - 1969 (1997)
James N. Hantula - B.A., M.A., University of Michigan
Associate Professor of Teaching: Social Studies - 1965 (1998)
Robert R. Hardman - B.S., Maryland State Teachers College; M.S., Ed.D., Indiana University
Professor of Educational Technology
Director of Training Services, Information Technology Services - 1970 (1999)
Jeanne McLain Harms - B.A., M.A.E., Ed.S., University of Northern Iow:; Ph.D., Ohio State University;
Professor of Education: Elementary Reading and Language Arts - 1961 (1999)
Gordon M. Harrington - B.E.E., Georgia Institute of Technology; Ph.D., Yale University
Professor of Psychology — 1963 (1992)
Edwin H. Harris - B.A., M.A., Univefsity of Northern Iowa
Associate Professor of Teaching: Art - 1982 (1992)
Virginia R. Hash - B.S., lowa State University; M.A., Ed.S., University of Northem Iown; Ph.D. Iowa State University
Director of Culture and Intensive English Program
Director of International Program Development - 1966 (1999)
Argella C. Hawley - B.S., Kearney State College
Instructor of Teaching: Elementary Foreign Language - 1983 (1997)
D. C. Hawley - B.A.Ed., Kearney State College; M.A., Ph.D., University of Iowe Professor of Spanish - 1966 (1998)
Marvin O. Heller - B.S., M.E., University of Nebrakka, Ed.D., University of Northern Colorado
Professor of Education: Elementary Education - 1970 (1997)
Louls R. Hellwig - B.A., M.A., New Mexico State University; Ph.D., University of Miscouri-Columbia
Assistant Professor of Psychology - 1964 (1997)
Clifford IH. Herrold - B.A., Central State University, Oldahoma; M.A., Colorado State University; Ed.D., Stanford University
Professor of Art - 1947 (1978)
Douglas M. Hleber - A.B., Cornell College, M.S.L.S., University of Illinois
Associate Professor and Head of Circulation - 1967 (1992)
Leah F. Hiland - B.S., M.A.L.S., Ph.D., Indiana University
Assistant Professor of Library Science - 1972 (1994)

Joseph F. Hohlfeld - B.A., Hastings College; M.B.S., University of Colorado; Ed.D., Indiana University
Associate Professor of Teaching: Mathematics - 1978 (1988)
Ollve J. Holllday - B.A., University of Northern lowa; M.A., University of Illinois
Associate Professor of Home Economics - 1949 (1974)
A. John Holstad - B.S., Northern State College, South Dakota; M.M., D.M., Northwestern University
Associate Professor of Piano - 1962 (1999)
Kard M. Molvik - B.A., Concordia College; M.A., Eastman School of Music, University of Rochester; Ph.D. University of lowa
Professor of Instrumental Conducting - 1947 (1984)
Joyce J. Hormby - 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)
Grace Ann Hovet - B.A., College of St. Catherine; M.A., University of Minnesota; Ph.D., University of Kansas
Professor of English - 1969 (1999)
Theodore R. Hovet - B.S., North Dakota State College; M, A, University of Minnesota; Ph.D., University of Kanses
Professor of English — 1969 (1999)
Gerald W. Intemann - B.S., M.S., Ph.D., Stevens Institure of Technology
Professor of Physics - I980 (2000)
Dean of the College of Natural Sciences - (1991-2000)
Margaret F. Ishler - B.A., M.A., Pennsylvania State University, Ed.D., University of Toledo
Professor of Education: Elementary - 1990 (2000)
Mary Ann Jackson - B.S., M.S., University of Arkansas
Assistant Professor of Teaching - 1953 (1981)
Edward Jamosky - B.A., M.A., M.A., University of Wisconsin
Assistant Professor of Russian - 1965 (1994)
John M. Jennett - B.S., M.A., Drake University
Associate Professor of Physical Education for Men - 1962 (1976)
Verner Jensen - B.S., University of Nebraake; M.S., lowa State University
Professor of Physics - 1956 (1991)
Valdon L. Johnson - B.A., M.A., University of Northern lowa
Assistant Professor of English — 1968 (1994)
Howard V. Jones - B.A., M.A., Ph.D., Harvard University
Professor of History — 1954 (1991)
Elaine B. Kalmar - B.A., M.A., Ph.D., University of New Mexico
Associate Professor of English - 1971 (1999)
John J. Kamerick - B.A., St. Ambrose; M.A., Ph.D., University of Iowa
Professor of History - 1970 (1986)
President(1970-1983)
Lawronce L. Kavich — B.S., M.S., Ed.D., University of Califomia-Los Angeles
Professor of Educational Psychology and Foundstions - 1977 (1994)
Lawrence W. Kleffer - B.A., M.A., University of Minnesota
Associate Professor and Head of Reference Department — 1969 (1996)
Jack F. KImball - B.A., University of Kanses City; M.A., Syracuse University; Ed.D., Columbia University
Associate Professor of Educational Administration and Counseling - 1967 (1988)

Howard T. Knutson - B.A., Luther College; M.A., Ed.D., University of Wyoming
Professor of Educational Administration and Counseling - 1953 (1981)
Director of Teacher Education
Dean of the College of Education - (1968-1976)
Robert E, Kramer - B.A., M.A. University of North Dakota
Assistant Professor of Sociology - 1965 (1998)
Marian E. Krogmann - B.S., South Dakota State University, M.A., Ph.D., University of lowa
Associate Professor of Political Science - 1967 (1995)
Rayimond Kuehl - B.A., Upper Iowa University, M.A., University of Iowa; Ed.S., Drake University; Ph.D., University of lowa
Professor of Teaching and Coordinator of Student Teaching - 1966 (1988)

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)
Richard T. Lattin - B.A., University of Northern Iowa; M.A., Ph.D., University of Iowa
Professor of Education - 1947 (1986)
Robert D. Leahy - B.S., Valparaiso University, Indiana; M.A. University of Iowa
Registrar - 1976 (1991)
Key Ton Lee - B.A., Union College, Nebrakka; M.A., Andrews University, Michigan; Ph.D., University of Oklahoma
Professor of Educational Psychology and Foundations - 1967 (1994)
Robert T. Lembke - B.S., M.S., Mankato State College; Ed.D., University of South Dakota
Associate Professor of Educational Administration and Counseling - 1974 (1993)

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 (1998)
John C. Longnecker - B.A., M.A., Univervity of Northern Iowa
Assistant Professor of Mathematics - 1966 (1999)
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)
H. Lewls Lynch - B.S., M.Ed., University of Nebraska! D.Ed., University of Wyoming
Associate Professor of Teaching
Coordinator of Student Teaching - 1951 (1987)
Howard W. Lyon - B.A., M.S., University of Iowe
Assistant Professor of Chemistry - 1956 (1992)
H. Kent Macomber - B.S., M.S., University of California-Berkeley; Ph.D., Harvard University
Professor of Physics - 1976 (2000)
Edna L. Mantor - B.A., University of Iowa; M.A., Calumbia University
Associate Professor of Teaching - 1923 (1968)
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. Mathesen - 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)
H. Kent Macomber - B.S., M.S., University of California-Berkeley; Ph.D., Harvard University
Professor of Physics - 1976 (2000)
David V. McCalley - B.A., M.A., University of Northern Iown; Ed.D., Univeraity of Northem Colorado
Professor of Biology and Science Education - 1966 (1999)
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)

Norman L. McCumsey - B.S., Oregon College of Education; M.Ed., University of Oregon; Ed.D., Colorado State College
Associate Professor of Educational Administration and Counseling - 1967 (1993)
G. Douglas McDonald - B.S., University of Pemnsyivenia; M.S., University of Minnesota
Assistant Professor of Marketing - 1963 (1973)
Kent A. McIntyve - B.A, University of Iowa; M.A, University of Denver
Associate Professor of Teaching: Educational Media - 1968 (1990)
Keith F. McKean - A.B., Williams College; MA., University of Chicago; Ph.D., University of Michigan
Professor of English - 1968 (1980)
Josephine J. Megivem - B.A., M.A., University of Northern Iowa
Assistant Professor of Home Economics - 1967 (1987)
Jame C. Mertesdorf - B.S., Mankato State College; M.A., Ball State University; Ph.D., Iowa State University
Assistant Professor of Leisure Services - 1966 (2000)
Coordinator of Leisure Services Division - (1993-2000)
Hattic M. Middleton - B.S., Florida A\&M University; M.A., University of Northern Iowa; Ph.D., Kansas State University
Assistant Professor of Design, Family and Consumer Sciences: Nutrition, Food Science and Dietetics - 1988 (2000)
Janice M. Morgan - B.S., M.Ed., University of Missouri-Columbie; Ph.D., Iowa State University
Associate Professor of Design, Family and Consumer Sciences: Family Services - 1972 (1998)

Robert E. Morin - B.A., M.S., Northwestem University; Ph.D., University of Wisconsin- Madison
Professor of Psychology - 1972 (1986)
Dean of the College of Social and Behavioral Sciences - (1972-1985)
Raul Munoz - B.A., M.A., University of Nebraska; M.A., Ph.D., Michigan State University
Professor of Spanish - 1963 (1996)
Gretchan M. Myers - B.A., University of Iowa; M.A.L.S., Rosary College
Assistant Professor and Reference Librarian — 1967 (1989)
Judy L. Myers - B.A., University of Iowa; M.A., University of Wisconsin
Assistant Professor and Catalog Librarian - 1967 (1996)
Hyo C. Myung - B.S., M.S., Seoul National Univernity, Korea; Ph.D., Michigan State University
Professor of Mathematics - 1970 (1998)
Phillip J. Nelson - B.S., Augustana College, South Dakota; M.A., Univerxity of Nebraska- Omaha
Assistant Professor of Teaching: Social Studies - 1969 (2000)
Richard S. Newell - B.A, M.A., University of Washington; Ph.D., University of Pennsyivania
Professor of History - 1967 (1995)
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)
Earl G. Ockenge - B.S., Augustana; M.S., University of South Dakota
Associate Professor of Teaching: Mathematics - 1988 (1999)
Kart Edward Odwarth - Diploma, Akademie fuer Welthandel, Frankfurt; A.B., M.A.T., Wayne State University; Ph.D., University of Michigan

Professor of German - 1964 (1991)
Alan R. Orr - B.A., Simpson College; M.S., Ph.D., Purdue University
Professor of Biology - 1965 (1998)
John H. Page - B. of Design, University of Michigan; M.F.A., University of lowe
Professor of Art - 1954 (1987)
Eugenla G. Parisho - B.A., Univeraity of Northern Iowa; M.A, University of Chicago
Assistant Professor of Teeching: Elementary Education - 1968 (1989)
Barbara E. Pershing - B.S., Western Illinois University; M.A., University of Northern Colorado; Ph.D., Iowa State University
Associate Professor of Design, Fumily and Consumer Sciences: Management and Consumer Studies and Family Services - 1971 (1996)

## Emeritus Faculty

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 K. Phillips - B.S., Southwest Missouri State College; M.Ed., Ed.D., University of Missouri
Professor of Teaching - 1948 (1982)
Coordinator of Student Teaching
Warren E. Piedlum - B.A., Colorado State University; M.S., Ph.D., Iowa State University
Associate Professor of Biology - 1957 (1987)
Douglas T. Pine - B.S., State University of New York-Oswego; M.A., Trenton State College; Ph.D., Ohio State University
Associate Professor of Industrial Technology - 1973 (2000)
Paul J. Porter - B.A., M.A., Ed.S., University of Northern Iowa; Ed.D., Drake University
Associate Professor of Educational Psychology and Foundations - 1967 (1997)
James Price - B.S.Ed., A.B., University of Missouri; M.A.Ed., University of Northern Iowa
Assistant Professor of Teaching: Foreign Language - 1963 (1983)
Joseph Przychodzin - B.Ed., Southern Illinois University; M.A., University of Illinois; Ed.D., University of Missouri
Professor of Educational Psychology and Foundations - 1947 (1980)
Lora Lee Rackstraw - B.A., Grinnell College; M.F.A., University of lowa
Associate Professor of English - 1966 (1996)
Ned H. Ratelin - B.A., Parsons College; M.A., Ph.D., University of Iowa
Professor of Education: Reading - 1965 (1992)
Jack C. Read -B.A., M.A., University of Northern Iowa; Ed.D., University of Nebraska-Lincoln
Associate Professor of Business Education - 1965 (1990)
Erwin W. Richter - B.S., Northern Michigan University; M.A., University of Northern Iowai Ph.D., University of Iowe
Professor of Chemistry - 1963 (1996)
Dixon L. Riggs - B.A., Marietta College; M.S., University of Michigan
Associate Professor of Biology - 1958 (1987)
Verna F. Ritchie - B.A., Hunter College; M.A., McGill University; M.A.L.S., University of Michigan
Professor and Art and Music Librarian - 1966 (1991)
James B. Roberson - B.S., Middle Tennessee State Teachers College; M.A., George Peabody College for Teachers
Associate Professor of Teaching - 1964 (1984)
Coordinator of Student Teaching
Donald O. Rod - A.B., Luther College; A.B.L.S., University of Michigan
Professor
Director of Library Services - 1953 (1986)
Mary H. Rohrberger - B.A., Newcomb College; M.A., Ph.D., Tulane University
Professor of English — 1990 (1997)
Robert L. Ross - B.A., University of Northern Iowa; M.A., Columbia University; Ph.D., Michigan State University
Professor of Political Science - 1962 (1996)
Betts A. Roth - B.S., George Peabody College for Teachers, M.A., Columbia University
Associate Professor of Teaching. Early Childhood Education - 1951 (1976)
Clair D. Rowe - B.A., M.A., University of Northern Iowa; Ph.D., University of Iowe
Professor of Marketing - 1986 (1991)
Julla J. Rozendaal - B.A., M.A., Ed.S., Univervity of Northern Iowa
Assistant Professor of Educational Psychology and Foundations - 1966 (1988)
Robert L. Rule - B.S., M.S., Ph.D., Iowa State University
Assistant Professor of Mathematics - 1966 (1998)
Edward Rutkowski - B.S., Marquette University; M.A., Ph.D., Michigan State University
Professor of Educational Psychology and Foundations - 1963 (1990)
Thomas G. Ayan - B.S.C., M.A., University of Iowa
Associate Professor of History - 1960 (1993)

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)
Augusta Schurrer - B.A., Hunter College; M.A., Ph.D., University of Wisconsin- Madison
Professor of Mathematics - 1950 (1997)
Lynn C. Schwandt - B.A., Coe College; M.A., Univenity of Northern Iowa; M.A., Stanford University

Professor of Teaching: Mathematics - 1964 (1992)
Jane K. Sherwin Schwarte - 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)

Allan R. Shickman - B.F.A., Washington University-St. Louis; M.A., University of Iowa
Associate Professor of Art - 1970 (1999)
Edna Anderson Shores - B.S., M.A., Teachers College of Columbia Univernity
Assistant Profescor of Home Economics - 1947 (1973)
Vera lo Siddens - B.A., M.A., University of Northem Iowa
Professor of Art — 1968 (1997)
Robert J. Simpson - B.A., Houghton College; M.S., Ph.D., University of Ullinois
Associate Professor of Biology — 1965 (1992)
James C. Skalne - B.A., Sioux Falls College; M.A., University of South Dakota
Assistant Professor of Communication Studies - 1965 (1998)
Audrey L. Smith - A.B., Kentucky Wesleyan College; M.A., Northwestern University, M.A.Ed, Ed.D., Ball State Univerrity
Assistant Professor of Educational Leadership, Counseling, and Postsecondary Education - 1973 (1998)
Francis E. Smith - B.A., University of Massechusettr; 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 Minnesote
Professor of Speech - 1947 (1982)
Eloise P. Soy - B.A., M.A., University of Northem lowa
Assistant Professor of Teaching: Elementary Education - 1965 (1979)
Joanne K. Spaide - B.S., University of Illinois; M.S., Ph.D., University of Iowa
Associate Professor of Design, Family and Consumer Sciences: Nutrition, Food Science and Dietetics - 1974 (1998)
Susan B. Stainback - B.S., Radford College, Virginia; M.Ed., Ed.D., University of Virginia
Professor of Special Education - 1974 (1998)
Myrtle M. Stone - B.A., Washington State University, M.B.A., University of Washington; Ed.D., New York University
Professor of Teaching - 1928 (1966)
Norman L. Story - B.A., David Lipscomb College; M.A., Western Michigan University, Ph.D., California School of Professional Psychology
Director of the Counseling Center
Counselor/Psychologist - 1968 (1992)
Charles T. Strein - B.A., University of Northern Iowa; M.A.T., Purdue University, M.A., Ph.D., University of Illinois
Associate Professor of Economics - 1970 (2000)
Elizabeth J. Strub - B.A., M.A., University of Northem Iowa
Assistant Professor of Teaching: Elementary Education - 1972 (1993)
Richard IF, Sturb - B.A., University of Northem Iowa; M.A., Colorado State College; Ed.D., University of South Dakota
Associate Professor of Educational Administration and Counseling - 1964 (1992)

Coordinator of Minority Recruitment - (1989-1992)
Marguirette May Struble - B.A., M.A., Ph.D., University of Iowa
Professor of Teaching - 1924 (1969)

Godifey (Garf) Stych - B.S.P.E., M.A., University of Iowa
Assistant Professor of Physical Education - 1966 (1991)
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)
Alice L. Swensen - B.A., University of Iowe; M.An Ph.D., Oklahoma State University
Associate Professor of English - 1978 (1998)
Robert D. Talbott - A.B., A.M., Ph.D., University of Illinois, UrbanaChampaign
Professor of History - 1967 (1996)
John E. Tarr - B.S.C., University of Iowe; M.A., University of Northern Iowa; Ph.D., University of Iowa
Professor of Teaching: Mathematics - 1961 (1998)
Nick E. Teig - B.A., M.A., University of Northern Iowa; Ed.D., University of Nebraska- Lincoln
Associate Professor of Teaching: Driver Education - 1967 (1999)
Coordinator of Student Teaching
E. Russell TePaske - B.A., Westmar College; M.A., University of Northern lowa; Ph.D., Oklahoma State University
Professor of Biology - 1963 (1989)
Shivesh C. Thakur - B.A., M.A., Patna University, India; Ph.D., University of Durham, England; Diploma, University of Oxford, England
Professor of Philosophy — 1984 (1999)
Leland A. Thompson - B.A., M.A., University of Northem lowa; Ed.D., University of Denver
Director of Campus Planning - 1968 (1992)
Marion R. Thompson - B.S., M.S., Southern Illinois University; Ed.D., Illinois State University
Professor of Special Education - 1978 (1999)
Thomas H. Thompson - B.A., M.A., Ph.D., University of Iowa
Professor of Philosophy - 1952 (1994)
William R. Thrall - B.S., Wisconsin State University-LaCrosse; M.S., University of Colorado; Ph.D., University of Iowa
Professor of Health, Physical Education and Leisure Services: Physical Education
Director of the School of Health, Physical Education and Leisure Services 1960 (1991)
Gordon A. Timpany - B.Ed., University of Wisconsin-Whitewater; M.A., University of Minnesota
Assistant Professor of Management (Business Education) - 1967 (1997)
Jean Ann Trout - B.S.Ed., Wittenberg University; M.A., Ball State University; Ed.D., Indiana University
Associate Professor of Educational Psychology and Foundations - 1970 (1991)
Howard VanderBeek - B.A., University of Iowa; M.A., Ed.D., Columbia University
Professor of Teaching - 1948 (1981)
Marjorie F. Vargas - B.S., M.S., University of Wisconsin
Assistant Professor of Teaching: Language Arts - 1964 (1998)
Francis D. Vilmain - B.A., University of Northern Iowa; M.S., University of Wisconsin
Professor of Physics - 1965 (1988)
Edward Y. Voldseth - B.A., University of Montana; M.A., Teachers College, Columbia University; Ph.D., University of Iowa
Vice President for Univeraity Relations and Development - 1964 (1988)
William L. Waack - B.A., University of Northern Iowa; M.A., Ph.D., University of lowa
Professor of Education
Director of Teacher Education - 1977 (1998)
Edward F. Wagner - B.S., University of Wisconsir; B.S., Wisconsin State College, Eau Claire, M.A.L.S., University of Wisconsin
Associate Professor and Interlibrary Loan Librarian - 1958 (1995)
Willis H. Wagner - B.S., Central Missouri State University; M.A., University of Missouri
Professor of Industrial Technology — 1945 (1982)

Robert J. Wallex, Jres - B.A., M.A., University of Northern lowa; D.B.A., Indiana University
Professor of Management (Decision Making) - 1968 (1998)
Stanley J. Walljasper - B.A., M.S., Ph.D., University of Iowe
Associate Professor of Computer Science - 1975 (1996)
Andre Walther - B.A., University of Northern Iowa; M.A., Michigan State University
Assistant Professor of French — 1964 (1996)
Donald R. Walton - B.A., St. Ambrose College; M.A., University of Northern lowa
Recruitment and Classification Specialist/Professional \& Scientific - 1966 (1993)

Robert T. Ward - B.A., Amherst College; M.A., Ph.D., Harvard University
Associate Professor of Physics and Science Education - 1975 (1999)
Carl O. Wehner - B.A., M.A.Ed., University of Northem 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)
Margaret Welser - B.A., Douglass College, Rutgers; M.S., Florida State University; Ed.D., University of Illinois
Professor of Education: Early Childhood - 1991 (1993)
James D. Welch - B.S,, M.Ed., University of Missouri
Associate Professor of Teaching: Music - 1962 (1987)
Donald B. Wendt - B.M., Northwestern Univerrity; M.A., University of Northern Iowe
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)
Head of the Department of History (1968-1988)
Donald E. Wiederanders - B.S., Wartburg College; M.A., University of Minnesota
Professor of Teaching: Mathematics - 1958 (1991)
Jack L. Wielenga - B.A., M.A., Ed.S., University of Northern Iow
Student Records and Retention Director - 1959 (1998)
Nixon A. Wilson - B.A., Eartham College; M. Wildlife Management, University of Michigan; Ph.D., Purdue University
Professor of Biology - 1969 (1997)
Robley C. WIlson, Jr. - B.A., Bowdoin College; M.F.A., University of Iowa; D.Litt., Bowdoin College

Editor, North American Review - 1963 (2000)
Dorothy Wineke - B.S., M.S., University of Wisconsin
Instructor of Teaching: Art - 1949 (1982)
Francis J. Whmter - B.A., University of Dubuque; M.A., Ph.D., University of Iowa
Assistant Professor of Political Science - 1965 (1996)
Harold B. Wohl - B.A., M.A., Ph.D., University of lowe
Professor of History - 1956 (1995)
Joanne Wolfe - B.A., M.A., University of Northern Iowa
Assistant Professor of Teaching: Elementary Education - 1967 (1995)
Ching S. Woo - B.A. Comell University, New York; M.S., University of Michigan; Ph.D., University of Kentucky
Professor of Chemistry - 1967 (1998) .
Evelyn S. Wood - A.B., Marshall University; M.A., University of Michigan
Associate Professor of English - 1966 (1992)
Barbara Yager - B.S., M.A., Ohio State University; Ed.D., University of Southern California
Professor of Physical Education - 1949 (1985)
H. Marcus Yoder - B.A., Bethel College, Kansas; M.A., Ph.D., University of lowa
Associate Professor of Education: Elementary Education - 1971 (1998)

## 2000-2002 Faculty

"Fred J. Abraham - B.S., University of Wisconsin-LaCrosse; M.S., University of Wisconsin-Madison; M.A., Ph.D., University of Oregon
Professor of Economics - 1973 (1988)
Head of the Department of Economics - 1992
Ronald J. Abraham - B.B.A., M.B.A., University of Wieconsin-Madison; CPA
Assistant Professor of Accounting - 1974
Megan Adams - B.A., College of St. Benedict; M.L.S., Syracuse University School of Information Studies
Assistant Professor and Reference Librarian and Bibliographer - 1998
"Charles M. Adelman - A.B., Brooklyn College; Ph.D., University of Chicago; Ph.D., University of Gothenburg, Sweden
Associate Professor of Art - 1983 (1985)
*Plta O. Agbese - B.Sc., Ahmadu Bello University; M.A., Northwestern University; M.B.A., Keller Graduate School of Management-Chicago; Ph.D., Northwestern University
Professor of Political Science - 1989 (1998)
*Martin Agran - B.A., City College of New York; M.A., University of Rochester, M.S., Western Oregon State College; Ph.D., University of Illinois-Urbana-Champaign
Professor of Special Education - 1999
*Iradge Ahrabi-Fard - B.A., M.A., University of Northern Iowa; Ph.D., University of Minnesota
Head Volleyball Coach
Professor of Physical Education - 1972 (1984)
Howard Aibel - B.S.9 M.S., Juilliard School of Music
Professor of Piano - 1978 (1984)
-Muhammad Imam Alam - B.S., M.S., University of Dhaka, Bangladesh; M.A., University of Houston; Ph.D., University of Illinois, UrbanaChampaign
Assistant Professor of Economics - 1996
Susan N. 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; M.A. University of Northern Iowa
Associate Professor and Reference Librarian - 1989 (1999)
Mary F. Allen - B.A., M.B.A., Boise State College
Instructor of Accounting - 1999
"Radhi H. Al-Mabuk - B.A., St. Mary's College-Winona; M.S., Winona State University; Ph.D., University of Wisconsin-Madison
Associate Professor of Educational Psychology and Foundations - 1990 (1996)
"Sandra K. Alper - B.S., M.A., Ph.D., University of Iowa
Professor of Special Education
Head of the Department of Special Education - 1994
LaVerne W. Andreessen - B.A., M.A., University of Northern Iowa; CPA
Assistant Professor of Accounting - 1980
"Kenneth R. Atkinson - B.A., Oakland University; M.Div., University of Chicago; M.A., Ph.D., Temple University
Assistant Professor of Religion - 1999
"C. Murray Austin - B.A., M.A., Ph.D., University of Pennsyivania
Professor of Geography and Regional Science - 1973 (1987)
Nasir M. A will - B.A., B.A., Southern Illinois University-Carbondale; M.S., University of Illinois-Urbana-Champtign
Instructor and Reference Librarian and Bibliographer - 1997
*Carolyn R. ©air - B.A., M.A., Northern Michigan University; Ph.D., Loyola Univeraty
Assistant Professor of Educational Leadership, Counseling and Postsecondary Education - 1998
Gary A. Baker - B.S., University of Tennessee; M.S., University of Illinois-Urbana-Champaign
Instructor of Management (Management Information Systems) - 1999
"John L. Baker - B.M., University of Missouri; M.M., Southern Illinois University; D.M.E., Florida State University
Assistant Professor of Bands - 1999
"Phyllis L. Baker - B.A., San Diego State University; M.A., Ph.D., University of California-San Diego
Associate Professor of Sociology - 1990 (1997)
Associate Dean of the College of Social and Behavioral Sciences - 1999
Director of Graduate Women's Studies Program — 1998


Megan E. Balong - B.A., M.A., University of Northern Iowa
Instructor of Teaching: Mathematics - 1999
*Ronnie G. Bankston - B.A., Beylor University; M.S., Oklahoma State University; Ph.D., University of Iowa
Associate Professor of Electronic Media - 1991 (1995)
Director of Graduate Studies
*Charline J. Barnes - B.A., Syracuse University; M.A., The George Washington University;
Ed.D., Virginia Polytechnic Institute and State University
Assistant Professor of Education: Reading - 1996
Director of Reading Clinic - 1999
"Howard L. Barnes - B.A., Macalester College; M.S., Kansas State University; Ph.D., University of Minnesota
Associate Professor of Design, Family and Consumer Sciences: Family Services
Head of the Department of Design, Family and Consumer Sciences - 1997
"Francisco X. Berrios - A.B., St. Louis University; M.A., Ph.D., University of Cincinnati
Professor of Psychology — 1979 (1989)
Head of the Department of Psychology - 1999
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
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)
*John D. Baskerville - B.A., Tarkio College; M.A., Ph.D., University of Iowa Assistant Professor of History - 1993 (1997)
*Ann Marie (Maria) Basom - B.A., University of Minnesota; M.A., Ph.D., University of Wisconsin-Madison
Associate Professor of Russian - 1994 (1996)
Head of the Department of Modern languages - 1998
*Kenneth E. Bissom - B.A., Earlham College; M.A., Ph.D., University of Wisconsin-Madison
Associate Professor of Political Science - 1991 (1996)
*Brenda L. Bass - B.A., California State University-Bakersfield; M.S., Ph.D., University of Arizona
Assistant Professor of Design, Family and Consumer Sciences: Family Services $-1996$
*Kenneth E. Baughman - B.A., Lawrence University, M.A., Ph.D., University of Chicago
Assistant Professor of English - 1972
*Melissa L. Beall - B.S, M.A., Ph.D., University of Nebraaka
Professor of Communication Studies - 1990 (1994)
*Walter E. Beck - B.M.E., Knox College; M.A., Ph.D., University of Illinois, Urbana-Champaign
Associate Professor of Computer Science - 1980 (1995)
Judy Markham Beckman - B.A., M.A., University of Northern Iowa; Ph.D., University of Minnesota
Assistant Professor of Teaching: Language Arts - 1969 (1975)
Coordinator of Student Teaching
*Penny L. Beed - B.S., Iowa State University, M.A., Ph.D., University of Iowa Associate Professor of Education: Reading - 1992 (1998)
*Roy R. Behrens - B.A., University of Northern Iowa; M.A., Rhode Island School of Design
Professor of Art - 1990
*Feredon (Fred) Behroozi - B.S., University of Washington-Seatle; Ph.D., University of Pittsburgh
Professor of Physics
Head of the Department of Physics - 1992
"sarah-marie belcastro - B.S., Haverford College, M.S., Ph.D., University of Michigan
Asssistant Professor of Mathematics - 1997
*Lisa A. Beltz - B.A., Malone College; Ph.D., Michigan State University
Assistant Professor of Biology - 1995
*Thomas R. Berg - B.A., M.A., Ph.D., Ohio State University
Associate Professor of Educational Psychology and Foundations - 1972 (1980)
*Virginia A. Berg - B.S., Tufts University, M.S., Ph.D., University of Washington
Professor of Biology — 1984 (1992)
*Gretta L. Berghammer - B.A., University of Wisconsin-Green Bay; M.F.A., University of Texas-Austin
Professor of Theatre - 1984 (1997)
*Barton L. Bergquist - B.S., North Park College; M.S., Northeastern Illinois University, Ph.D., University of Kanses
Professor of Biology - 1978 (1992)
Associate Dean of the College of Natural Sciences - 1995
David H. Berman - B.A., Carleton College, M.A., Ph.D., University of Wisconsin-Madison
Associate Professor of Physics - 2000
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)
*Steven E. Bigler - B.A., M.F.A., University of Minnesota
Professor of Art — 1978 (1988)
Thomas Blaine - B.A., Western Illinois University, M.A., University of Northern Iowa
Instructor of Teaching and Coordinator of Student Teaching - 1999
Katherine M. Blecha - B.S., M.A., University of Nebraska-Lincoln
Instructor of Teaching and Coordinator of Student Teaching - 1996
*Ken Bleilt - B.A., San Francisco State University, M.S., University of Oregon; Ph.D., University of Iowa
Associate Professor of Communicative Disorders
Head of Department of Communicative Disorders - 1996
Brenda S. Bock - B.S., University of Missouri; M.A., University of Northern lowa
Instructor of Teaching: Mathematics - 1998
"Mary E. Boes - B.A., Briar Cliff College; M.S.W., M.P.H., Tulane University, D.S.W., University of Pennsylvania

Associate Professor of Social Work - 1994 (1999)
"Carl W. Bollwinkel - B.S., Concordia Teachers College; M.S., Ph.D., Southern Illinois University
Professor of Teaching: Science Education - 1980 (1991)
*Robert M. Boody — B.S., Ph.D., Brigham Young University

Associate Professor of Educational Psychology and Foundations - 1992 (1998)
Alicja Boruta-Sadkowski - M.A., Warsaw University, Poland; Ph.D., University of Michigan
Instructor of Russian - 1996
Lyle L. Bowlin - B.L.S., M.A., University of Iowa
Instructor of Finance - 1999
WWillam F. Bowlin - B.A., Grove City College, Pennsylvania; M.A., University of Northern Colorado; Ph.D., University of Texas-Austin
Professor of Accounting - 1994 (1998)
*Mary K. Bozik - B.S., University of Wisconsin-OathKosh; M.A., Bradley University; Ph.D., University of Illinois, Urbana-Champaign
Professor of Communication Education - 1982 (1992)
Gwen Bramiet-Hecker - B.S., Eastern Illinois University; M.S., Illinois State University
Instructor of Criminology - 1999
-Lymn A. Brant - B.S., M.S., D.Ed., Pennsylvania State University
Associate Professor of Geology - 1982 (1998)
Dorothy M. Brecheisen - B.S., Kansas State; M.S., Ph.D., Purdue University
Instructor of Biology - 1995
"Allen B. Brierly - B.A., M.A., Ph.D., Michigan State University
Associate Professor of Political Science - 1990 (1994)
Dianna L. Briggs - B.A., M.A., University of Northern Iowa
Instructor of Teaching and Coordinator of Student Teaching — 1978 (1989)
Donald B. Briggs - B.A., University of Iowa; M.A., University of Northern Iowa
Instructor of Leisure Services - 1972 (1997)
*Harry W. Brod - B.A., New York University, M.A., Ph.D., University of California-San Diego
Associate Professor of Philosophy - 1999
"Edward J. Brown - B.S., University of Minnesota-St. Paul; M.S., Ph.D., University of Wisconsin-Madison
Director of Environmental Phograms
Professor of Biology - 1992
*Kenneth H. Brown - B.S., St. Louis University, M.S., Ph.D., University of Illinois, Urbana-Champaign
Assistant Professor of Economics — 1994
*Leander A. Brown - B.A., Fisk University, M. A., Roosevelt University, Ph.D., Iowa State University
Assistant Professor of Educational Psychology and Foundations - 1970
William J. Broz - B.A., M.A., Ph.D., University of Iowa
Assistant Professor of English - 2000
*Gregory L. Bruess - B.A., Augsburg College; M.A., Ph.D., University of Minnesota
Associate Professor of History - 1989 (1997)
*Reinhold K. Bubser - Abitur, Ziehen-Realgymnasium (Frankfurt); B.A., Western Michigan University; M.A., Ph.D., Michigan State University
Professor of German 一 1982 (1984)
Associate Dean of the College of Humanities and Fine Arts - 1996
*Siegrun T. Bubser-Wildner - B.A., Padagogische Akademie (Klagenfurt); M.A., University of Northem Iowa; Ph.D., University of Iowe

Assistant Professor of German - 1995 (1998)
David J. Buch - B.F.A., School of the Art Institute-Chicago; B.A., Northeastern Illinois University, M.M., Ph.D., Northwestern University
Professor of Music History - 1985 (1996)
Suzanane E. Buckwalter - B.A., University of Northern Iowa; M.S., Northwestern University
Instructor of Teaching: Mathematics - 1999
*John A. Bumpus - B.S., M.S., State University of New York-Orwego; M.A., State University of New York-Binghamton; Ph.D., St. Louis University, School of Medicine
Professor of Chemistry - 1995 (1999)
*Lesta A. Burgess - B.S., M.A., Northeastern State University, Oklahoma; Ed. D., Oklahoma State University

Assistant Professor of Industrial Technology - 1998
*Rebecca L. Burkhardt - B.M., Southwestern University, M.M.E., North Texas State University; Ph.D., University of Texas-Austin
Associate Professor of Theory - 1994
Director of the Orchestra - 1988

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## 2000-2002 Faculty

"Adam B. Buter - B.S., University of Iowa; M.A., University of NebrasicaOmaha; Ph.D., University of Nebraska-Lincoln
Assistant Professor of Psychology - 1999
*Kay Butler-Nalin - B.A., Central College; M.A., Ph.D., Stanford University Assistant Professor of English - 1991
.Jeffrey J. Byrd - B.F.A., University of Alabama; M.F.A., University of Florida Associate Professor of Art - 1989 (1994)
*Mingshui Cai - B.A., Fujian Teaching College; M.A., Hangzhou University, M.A., University of Akron; Ph.D., Ohio State University

Associate Professor of Education: Reading - 1992 (1997)
-William P. Callahan II - B.A., University of Southern 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 Marhematics - 1983 (1988)
*Christine L. Canning - B.S., Bowling Green State University, M.A., Michigan State University; Ph.D., University of Michigan
Associate Professor of Teaching and Coordinator of Student Teaching - 1988 (1994)
*Thomas F. Capshew - B.A., Indiana University-Bloomington; J.D., Indiana University School of Law; M.S.W., Ph.D., Florida State University-Tallahassee
Assistant Professor of Social Work - 1999
"Phyllis Scott Carlin - B.S.E., Northeast Missouri State University, M.S., Ph.D., Southern Illinois University
Professor of Communication Studies - 1976 (1988)
Rori R. Carson - B.S., M.S.Ed., Western Illinois University, Ph.D., University of lowa
Associate Professor
Associate Dean of the College of Education
Director of Teacher Education - 1999
Jerry V. Caswell - B.A., Brandeis University, M.A., M.A.s Ph.D., University of Wisconsin-Madison
Associate Professor and Head of the Library Information Technologies - 1999
-G. Scott Cawelti - B.A., M.A., University of Northern lowa; Ph.D., University of Iowa
Professor of English - 1968 (1995)
*Bruce B. Chamberlain - B.M.E., M.M., D.M., Indiana University
Associate Professor of Choral Music - 1989
-Paul Chao - B.S, M.S., University of Canterbury, New Zealand; M.B.A., Washington State University; Ph.D., University of Washington
Professor of Marketing - 1989 (1996)
${ }^{-A p r l t}$ D. Chatham-Carpenter - B.A., University of Central Arkansas; M.A., Ph.D., University of Oklahoma
Associate Professor of Communication Studies - 1991 (1997)
*Shing-Ling S. (Sarina) Chen - B.A., Providence College, Taichung; M.A., Ph.D., University of Iowe
Associate Professor of Communication Studies - 1990 (1998)
"Zhoujun (Joyce) Chen - B.S., Quin Hua University, M.A., Ph.D., University of lowa
Assistant Professor of Electronic Media - 1994
-Jonathan N. Chenoweth - B.M., B.A., Oberlin College; M.M., Virginia Commonwealth University, M.M., D.M.A., State University of New YorkStony Brook
Assistant Professor of Cello - 1991 (1992)
*R. Martin Chin - B.S., Lehigh University; Ph.D., University of Rochester Assistant Professor of Chemistry - 1999
C. David Christensen - B.A., M.A., University of Northern Iowa

Associate Professor of Teaching: Elementary Education - 1974 (1993)
Beth E. Clausen - B.A., M.A., University of Iowa
Instructor and Documents and Maps Reference Librarian and Bibliographer 1997
*Dennis E. Clayson - B.S., Ph.D., Brigham Young University
Professor of Marketing - 1982 (1997)
*Maureen E. Clayton — B.S., Eckerd College; Ph.D., MIT/Woods Hole Oceanographic Institute
Assistant Professor of Biology - 1998
*Scharron A. Clayton - B.S., Central State University; M.Ed., University of Delaware; Ph.D., University of Iowa
Associate Professor of Philosophy and Religion - 1991
*Roberto Clemente - B.A., M.Ed., University of Puerto Rico; Ph.D., Oregon State University
Assistant Professor of Educational Leadership, Counseling and Posisecondary Education - 1998
*william W. Clohesy - B.S., Loyola University-Chicago; M.A., Southern Illinois University-Carbondale; Ph.D., New School for Social Research, New York
Associate Professor of Philosophy - 1987 (1992)
Darlene G. Coarts - B.S., M.B.A., University of Maryland-College Park; CPA
Instructor of Accounting - 1997
*Carol A. Colburn - BA., Western Washington University; M.A., Ph.D., University of Minnesota
Professor of Theatre - 1981 (1997)
*Richard W. Colburn - B.A., Western Washington University, M.F.A., University of Minnesota
Professor of Art - 1982 (1997)
David A. Combs - B.S., Northeast Missouri State
Captain and Assistant Professor of Militury Science - 1997
Thomas G. Connors - B.A., Washington and Lee University; M.A., Ph.D., University of Illinois, Urbana-Champaign
Assistant Professor of History - 1996
*Jennlfer Cooley - B.A., Lawrence University; M.A., Syracuse University; Ph.D., University of Iowe
Ascistant Professor of Spanish - 1999
*Shoshanna R. Coon - B.S., Indiana University; Ph.D., University of TexresAustin
Assistant Professor of Chemistry - 1995
Darlene E. Cooney - B.S., Lockhaven Univerigity, M.A., University of Northern lowa
Instructor of Teaching: Preschool Disabled Project - 1989
*Tmothy M. Cooncy - B.S., Lockhaven University, M.S., Elmira College; Ed.D., University of Northerm Colorado
Professor of Earth Science and 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
Professor of English — 1981 (1995)
Head of the Department of English Language and Literature - 1997
"Steven B. Cortin - B.A., University of Northem Iowa; M.Ed., Colorado State University; Ed.D., Virginia Polytechnic Institure and State University
Associate Professor of Marketing - 1975 (1980)
Anthony W. Cornellus - B.S., Embry-Riddle Aeronautical University
Major and Assistant Professor of Military Science - 1996
Karen Couch-Breitbach - B.A., M.A., University of Northern lowa
Instructor of Teaching: Science Education - 1985 (1990)
"Cynthia M. Coulter - B.S., M.L.S., Kent State University, Ph.D., University of Oidahoma
Associate Professor and Head of Acquisitions - 1989 (1992)
*Lyn L. Countryman - B.A., Iowa State University, M.A. Ph.D., University of lowa
Associate Professor of Teaching: Science Education - 1990 (1997)
"Arthur T. Cox - B.B.A., M.A., Ph.D., University of Iowa
Associate Professor of Finance - 1989 (1995)
Director, Real Estate Education Program
*B. Keith Crew - B.A., Auburn University-Montgomery; M.A., Ph.D., University of Kentucky
Associate Professor of Sociology - 1985 (1992)
Head of the Department of Sociology, Anthropology and Criminology — 1996
*Dennis C. Cryer - B.A., M.A., University of Northern Iowa; Ph.D., University of Utah
Associate Professor of Health Education - 1976 (1989)
Coordinator of Health Education Division - 1995

James D. Cryer - B.A., M.A., University of Iowa
Instructor of Teaching: English Education - 2000
Gail A. Culler - B.S., James Madison University, M.S.L.S., Catholic University of America; M.M., Baylor University,
Assistant Professor and Art and Music Librarian and Bibliographer - 1999
"Leonard Curtis - B.A., M.F.A., University of Iowa
Assistant Professor of Theatre - 1993 (1995)
Barbara Cutter - B.A., Columbia University, Ph.D., Rutgers University Associate Professor of History 一 2000
Dale Cyphert - B.A., San Diego State; M.B.A., University of California-Davis Instructor of Management and Coordinator of Business Communication 1997
*Alan C. Czarnetski - B.S., M.S., Ph.D., University of Wisconsin-Madison Associate Professor of Meteorology - 1992 (1998)
Dale Cyphert - B.A., San Diego State; M.B.A., University of Califomia-Davis; Ph.D., Penn State University
Instructor of Management
Coordinator of Business Communication - 1997
"Dennis E. Dahms - B.J., A.M., University of Missouri; M.A., University of Colorado; Ph.D., Univernity of Kansas
Associate Professor of Geography - 1990 (1996)
*Donald R. Darrow - B.A., M.A., University of Northern lowa; 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 (Operations Management) - 1986
Nadene A. Davidson - B.A., M.A., University of Northern lowa
Instructor of Teaching: Design, Family and Consumer Sciences - 1981 (1985)
*Roberta Davilla - B.A., Monmouth College; M.S., Boston University, Ph.D., Ohio Univeraty
Assistant Professor of Communication Studies - 1994
"Darrel W. Davis - B.A., M.A., University of Northern Iowa; Ph.D.,
Oklahoma State University; CPA
Associate Professor of Accounting - 1969 (1977)
*Suzanne L. Davis - B.A., Purdue University; M.A., Ph.D., University of Illinois-Chicago
Assistant Professor of Psychology — 1998
Thomas M. Davis - B.A., Central Washington University, M.S, H.S.D., Indiana University
Professor of Health Education - 1979 (1999)
*Kenneth J. De Nault - B.S., Stanford University; M.S., University of Wyoming; Ph.D., Stanford University
Associate Professor of Geology - 1973 (1980)
"Betty A. DeBerg - B.A., Concordia College; M.Div., Vanderbilt Divinity School; M.A., Ph.D., Vanderbilt University
Professor of Philosophy and Religion
Head of the Department of Philooophy and Religion - 1997
"Andrea DeBruin-Parecki - A.B., University of California-Berkeley; M.A., Ph.D., University of Michigan
Assistant Professor of Educational Psychology and Foundations - 1997
*Robert H. Decker - B.S., Chicago State University, M.S., Southern Illinois University, Ed.S., Southeast Missouri State University; Ed.D., Illinois State University
Professor of Educational Leadership, Counseling, and Postsecondary Education - 1984 (1998)
*Deborah K. Deemer - B.A., Muskingun College; M.S., Pennsyivania State University, Ph.D., University of Minnesota
Assistant Professor of Educational Psychology and Foundations - 1994
"Vlatoria L. DeFrancisco - B.A., Drake University; M.A., Ohio University; Ph.D., University of Illinois
Associate Professor of Communication Studies - 1988 (1994)
*John J. Deisz - B.S., North Dakota State University; M.S., Univernity of California-Davis; Ph.D., Ohio State University
Assistant Profescor of Physics - 1999
-James W. Demastes - B.S., Auburn University, M.S., Ph.D., Louisiana State University
Assistant Professor of Biology - 1998
"Diane E. Depken - B.A., Ed.D., Temple University
Assistant Professor of Health Education - 1995
Michael P. DePuglio - B.S., University of Nebraska-Omabas: M.S., University of North Dakota-Grand Forks
Lieutenant Colonel and Head of the Department of Military Science - 1999
Aricia M. DeVries - B.A., M.A., University of Northern Iowa
Instructor of Teaching: Secondary Resource Program — 1983 (1987)
*Rheta DeVries - B.A., Baylor University, Ph.D., Univerxity of Chicago
Professor of Education: Early Childhood
Director, Regents Center for Early Developmental Education - 1993
*Kavita R. Dhanwada - B.S., University of Illinois; Ph.D., Loyola UniversityChicago
Assistant Professor of Biology - 1998
*Amella Dimitrova - B.A., M.A., University of Sofia, Bulgaria; Ph.D., University of Missouri-Columbia
Assistant Professor of Journalism - 1997
-Robert L. Dise - B.A., University of Virginia; A.M., Ph.D., University of Michigan
Assaciate Professor of History - 1992 (1998)
"Forrest A. Dolgener - B.S., M.Ed., Ph.D., Univerxity of Texab-Austin
Professor of Physical Education - 1979 (1991)
"Timothy B. Dooley - B.S., B.F.A., Florida State University; M.F.A., University of Tennessee
Assistant Professor of Art - 1999
*Gregory M. Dotseth - B.A., Luther College; M.A., Western Washington University, PhD., Iowa State University
Associate Professor of Mathematics - 1966 (1974)
Acting Head of Departument of Mathematics - 2000
'William R. Downs - B.A., University of Minnesota-Minneapolis; M.S.S.W., University of Wisconsin-Milwaukee; Ph.D., University of WisconsinMadison
Professor of Social Work
Director of Center for the Study of Adolescence - 1992
"Janet M. Drake - B.S., St. Cloud University; M.S., Ph.D., University of Minnesota
Associate Professor of Computer Science - 1993 (1998)
*Jacques F. DuBols - B.S., Kearney State College; M.A., University of Nebraska
Assistant Professor of French - 1906 (1971)
"David R. Duncan - B.S., M.S., North Dakota State University; Ph.D., University of Michigan
Professor of Mathematics - 1963 (1976)
Cynthia Nickel Dunn - B.A., Oberlin College; M.A., Ph.D., University of Texas
Assistant Professor of Anthropology - 2000
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Professor of Anthropology - 1979 (1990)
Lymn K. Dykstra - B.S., Creighton University, M.A., Ed.S., University of Iowe
Instructor of Teaching: Educational Media - 1984 (1986)
-J. Phillip East - B.S., Southwestern Oklahoma State University; M.S., Ph.D., University of Oregon
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Professor of Art - 1969 (1985)
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Assistant Professor of Mathematics - 1997
-Jay A. Edelnant - B.A., MacMurray College; M.A., Ph.D., Northwestern University
Professor of Performance Studies - 1971 (1989)
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Assistant Professor of History - 2000

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Professor of Leisure Services
Director of the School of Health, Physical Education and Leisure Services - 1991
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Associate Professor of Industrial Technology - 1985 (1991)
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*David K. Else - B.S., Westmar College; M.A., University of South Dakota; Ph.D., Iowa State University
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Director, Institute for Educational Leadership - 1988 (1990)
*Michael E. Emch - B.A., Alfred University, M.A., Miami University; Ph.D., Michigan State University
Assistant Professor of Geography - 1998
Lynne C. Ensworth - B.S., Gordon College; M.A., University of Southern Maine
Instructor of Teaching: Elementary Education - 1998
*Lawrence T. Escalada - B.S., B.S., M.S., Ph.D., Kansas State University
Assistant Professor of Physics and Science Education - 1997
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Michael P. Fanelli - B.M., University of Mlinois; M.A., University of Missouri Instructor of Teaching: Music - 1987
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Associate Professor of Art - 1991 (1996)
*Barbara Fast - B.M., Bethel College; M.M. Kansas State University; Ph.D., University of Oklahoma
Assistant Professor of Piano and Piano Pedagogy (1997)
Coordinator of Group Piano - 1985
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Assistant Professor of History - 1995
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*Kevin Finn - B.A., University of Northern Iowa; M.S., Ph.D., University of New Mexico
Assistant Professor of Physical Education - 1999
*Linda M. Fitzgerald - B.A., M.A., Ph.D., University of Chicago
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Assistant Professor of Design, Family and Consumer Sciences: Family Services $-1999$
*Angelelta 5. Floyd - B.M., Stetson University, M.M., M.M.E., D.M., Florida State University
Professor of Flute - 1986 (1997)
"Thomas M. Fogarty - A.B., Catholic University of America; M.A., Georgetown University; A.M., Ph.D., University of Pennsylvania
Associate Professor of Geography and Public Policy - 1989
Richard A. Followill - B.S., M.B.A., Ph.D., University of Alabama
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Executive Assistant to the President/Director of External Relations - 1996
Terri Gebel - B.A., M.A., University of Northern Iowa
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Adjunct Instructor of Education: Reading - 1999
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Associate Professor of Biology - 1994 (1999)
*Albert R. Gilgen - B.A., Princeton University; M.A., Kent State University; Ph.D., Michigan State University
Professor of Psychology - 1973
*Andrew R. Gilpin - B.S., M.A., Ph.D., Michigan State University
Professor of Psychology - 1974 (1986)
Samud Lyndon Gladden - B.A., University of Texas; M.A., Ph.D., Texas A\&M University
Assistant Professor of English — 2000
*Richard P. Glockner - B.A., New York University; M.F.A., Temple University
Associate Professor of Theatre - 1991
*Cynthia A. Goatley - B.A., M.A., University of Arkansas; Ph.D., Bowling Green State University
Associate Professor of Theatre - 1991 (1994)
*Joanne A. Goldman - B.A., M.A., Ph.D., State University of New YorkStony Brook
Associate Professor of History — 1990 (1998)
*Debra G. Gordon - B.A., University of Iowa; M.A., Ed.D., University of Northern Iowa
Assistant Professor of Music - 1997
*Ronald J. (Joo) Corton - B.S., University of Houston-Clear Lake City; M.S.W., University of Houston; Ph.D., Texas A\&M University

Assistant Professor of Criminology - 1998
*Vince F. Gotera - B.A., Stanford University; M.A., San Francisco State University; M.F.A., Ph.D., Indiana University
Associate Professor of English - 1995 (1997)
Co-editor, North American Review - 2000
Lynda L. Goulet - B.S., Denison University; M.B.A., University of Northern Iowa
Instructor of Management (Business Policy and Strategy) - 1978
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Chair of Entrepreneurial Studies - 1997
Unda K. Graber - B.S., Northwest Missouri State University
Instructor of Teaching and Science Education - 1994
*Randy E. Grabowald - B.M.E., Indiana University; M.M., University of Nevada-Reno; D.M., Indiana University
Professor of Trumpet - 1986 (1996)
Jack E. Graham - B.M.E., Wichita State University; M.M., North Texas State University
Professor of Clarinet - 1967 (1999)
*Paul A. Gray - B.S., University of lowa; Ph.D., Michigan State University Assistant Professor of Mathematics - 1999
*Willis (Bill) R. Greer - B.S., M.B.A., Cornell University; Ph.D., University of Michigan
Professor of Accounting
Dean of the College of Business Administration - 199
*Mark A. Grey - B.A., University of Northern Colorado; M.A., Eastern New Mexico University; Ph.D., University of Colorado-Boulder
Associate Professor of Anthropology - 1990 (1995)
*Edwin H. Griffith - B.A., Lake Forest College; M.A., Univerxity of Cincinnati; Ed.S., Western Ilinois University, Ph.D., University of Iowa
Associate Professor of Educational Leadership, Counseling and Postsecondary Education - 1998
*John Grinstead - B.A., M.A., Ph.D., University of California-Los Angeles
Assistant Professor of Spanish - 1999
Joseph G. Grzywacz - B.S., M.S., Ph.D., University of Wisconsin
Assistant Professor of Health Promotion and Education - 2000
Mary F. Guenther - B.A., M.A., University of Northern Iowa
Instructor of Teaching: Elementary Education - 1992
"Pola B. Gupta - B.E., S.V. University, M.B.A., Ph.D., State University of New York- Buffalo
Associate Professor of Marketing - 1991 (1996)
*Robin D. Guy - B.M.E., Baldwin-Wallace College Conservatory of Music, M.M, Baylor University; D.M.A., University of Arizona

Associate Professor of Accompanying - 1990 (1995)
"Joel K. Hanck — B.A., M.S., M.S., Ph.D., University of low
Professor of Mathematics - 1991
Interim Dean of the College of Natural Sciences - 2000
*Carlin F. Hageman - B.A., M.A., Ph.D., University of Colorado
Professor of Speech-Language Pathology - 1982 (1999)
-David R. Hakes - B.S., Ph.D., Iowe State University
Professor of Economics - 1992 (1997)
*Frederick W. Halgedahl - B.M., Eastman School of Mutic; M.M., Emporia State Univeraity
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 - 1973
James G. Hall - B.S., M.S., Eastern Illinois University
Instructor of Physical Education - 1983
*Teresa J. K. Hall - B.A., M.A, University of Northern Iowa; Ph.D., Iowa State University
Assistant Professor of Industrial Technology - 1992 (1997)
-Jeongwon Ham - Folkwang Hochschule for Musik, Germany; Hochschule der Kunste, Germany; D.M.A., University of Kansas
Assistant Professor of Piano - 1999
*Hancy P. Hamilton - B.A., San Jose State University; M.A., California State University- Los Angeles; Ph.D., University of Illinois
Associate Profensor of Physical Education - 1987 (1993)
Associate Director of the School of Health, Physical Education and Leisure Services - 1995
*Glenn L. Hansen - B.A., M.A, University of Northern lowa; Ph.D., Texas A\&M University
Associate Professor of Management
Dean of the Division of Continuing Education and Special Programs - 1964 (1982)

Lise C. Hansen - A.B.J., M.Ed., University of Georgie
Instructor of Education - 1998
Stan Hansen - B.A., B.A, University of Iowa; M. of Tax, Drake University; CPA
Instructor of Accounting - 1997
*Curtiss D. Hanson - B.S., University of Nebrakka-Omaha; Ph.D., Texas A\&M University
Associate Professor of Chessintry - 1989 (1994)
*James G. Hanson - B.S., Southwest Missouri State University, M.S.W., University of Georgia; Ph.D., University of Kanses
Associate Professor of Social Work - 1990 (1995)
*Judlth F. Harrington - B.S., Boston College M.A., University of Iowe
Assistant Professor of Speech-Language Pethology — 1965 (1969)
*Mark A. Harris - B.S., M.S., Brigham Young University; Ph.D., Ohio State University
Assistant Professor of Criminology - 1999
Melarie A. Hart - B.Se, M.Ed., Texus Tech University, Ph.D., Auburn University
Assirtant Professor of Physical Edmcation - 2000
Jennifer L. Hartman - B.A., M.A., University of Northern Iowa
Director/Parent Coordinator, Regent's Center for Early Developmental Education - 2000
*Helen C. Harton - B.A., Wake Forest University, M.A., Ph.D., Florida Atlantic University
Ascistant Professor of Psychology — 1997
Rebecca W. Hawbeker - B.A., University of Northern Iowa; M.A., University of lowe
Instructor of Teaching: At Risk and Resource - 1998
*Richard R. Hawkes - B.S., Municipal University of Omahs; M.S., University of Nebraska-Omaha; Ph.D., University of Nebraska-Lincoln
Professor of Teaching
Coordinator of Student Teaching - 1969 (1984)
*Richard Allen Hays, Jr. - B.A., Johns Hopkins University; M.A., Ph.D., Univeraity of North Carolina
Professor of Political Science - 1979 (1994)
Director of Graduate Program in Public Policy - 1994
Barbara A. Heitzman - B.F.A., University of Michignn
Instructor of Teaching: Creative Dramatics (Elementary) - 1990
"BIIl Henderson - B.A., Central State College, Oklahoma; M.A., University of Houston; Ph.D., University of Minnesota
Associate Professor of Communication Studies - 1978
${ }^{-}$Carole Singleton Henkin - A.B., M.A., University of Alabama; Ph.D., Univeraity of Wisconsin-Madison; M.S.W., Certificate in Aging Studies, University of lowa
Professor of Social Work - 1989 (1999)
*John E. Henning - B.A., Pennsyivania State University, M.Ed., Ph.D., Kent State University
Assistant Professor of Educational Psychology and Foundations - 1999
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)
"Cynthila J. Herndon - B.S., Springfield College; Ph.D., University of Wisconsin-Madison
Associate Professor of Physical Education - 1985 (1991)
Coordinator of Physical Education Division - 1995
"Reinier H. Hesselink - B.A., University of Amsterdam; Ph.D., University of Hawaii- Manoa
Assistant Professor of History - 1995
"Melissa L. Heston - B.S., Oklahoma State University, M.S., Ph.D., Indiana University
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"Wallace A. Hettle - B.A., Ph.D., Northwestern University
Assistant Professor of History - 1994
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Professor of Biology
Head of the Department of Biology - 1994
James J. HiDuke - B.A., St. Joseph's College, Indiana; M.A., Marquette University
Assistant Professor of English - 1967 (1973)
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Professor of Speech-Language Pathology - 1975 (1994)
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Assistant Professor of Psychology - 1994
*Susan E. Hill - B.A., Macalester College; M.An, Ph.D., University of Chicago
Assistant Professor of Religion - 1994
"Thomas W. Hill - B.S., University of Wisconsin; Ph.D., University of Pennsylvania
Professor of Anthropology - 1972 (1985)
"Thomas A. Hockey - B.S., Massachusetts Institute of Technology; M.A., M.S., Ph.D., New Mexico State University

Professor of Astronomy - 1988 (1999)
Lowell R. Hoeft - B.S., University of Wisconsin-Stevens Point; M.A., University of Northern Iowe
Instructor of Teaching: Foreign Language - 1987
Randy A. Hogancamp - B.A., University of Northern Iowa; M.M., Northwestern University
Assistant Professor of Percussion - 1972 (1976)
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*Charles W. Holcombe - B.A., M.A., Ph.D., University of Michigan
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*Margaret G. Holland - B.A., M.A., Boston College; Ph.D., State University of New York-Buffalo
Associate Professor of Philosophy - 1991 (1998)
"Gloria Kirkland Holmes - B.A., Fisk University; M.S., Ph.D., Indiana State University
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Paul Horton - B.S., M.A., University of Texas-Austin
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Associate Dean for Student Services, Graduate College - 1990
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Dennis W. Kettner - B.A., M.A., University of Northern Iowa
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"Syed N.U.A. Kirmani - B.S., M.S., Lucknow University, India; Ph.D., Aligarh Muslim University, India
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"Michael L. Klassen - B.A., Tabor College; M.A.T., Mennonite Seminary; M.S., Ph.D., Kansas State University

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Assistant Professor of Special Education - 1995
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Professor of English — 1972 (1976)
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"Susan J. Koch - B.S., Dakota State College; M.A., Ed.D., University of Northern lowa
Professor of Health Education - 1983 (2000)
Associate Vice President for Academic Affairs - 1999
*Frank W. Kohler — B.A., St. Cloud State University, M.A., Ph.D., University of Kansas
Assistant Professor of Special Education - 1999
"Fritz H. Konig - B.A., University of Heidelberg; Candidatus Magisterii, University of Oslo; M.A., Ph.D., University of lowa
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
Associate Professor of Psychology - 1990 (1996)
*Kyle L. Kostelecky - B.A., Washington State University; M.S., Ph.D., Iowa State University
Assistant Professor of Design, Family and Consumer Sciences: Family Services - 1999

Theresa A. Kouri — B.A., M.A., University of Northern Iowa; Ph.D., Kent State University
Instructor and Speech Language Hearing Clinician Coordinator - 1991

[^12]*Marilou DeWall Kratzenstein - B.A., Calvin College; M.A., Ohio State University; D.M.A., University of Iowa
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
Professor of Economics - 1987 (1997)
*Dean A. Kruckeberg - B.A., Wartburg College; M.A., Northern Illinois University-DeKalb; Ph.D., University of Iowa
Professor of Public Relations - 1983 (1994)
Karla K. Krueger - B.A., Luther College; M.A., University of Northern Iowa
Instructor of Teaching and Curriculum and Technology Project Specialist 1996 (1997)
*Robert R. Krueger - B.A., Ph.D., University of Minnesota
Associate Professor of Spanish and Portuguese - 1984 (1991)
John A. Krumbholz - B.A., Coe College; M.A. University of Iowa
Instructor of Teaching
Principal of Price Lab School - 1998
*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 S. 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 Education - 1972
"Que Lan - B.S., Wuhan University; M.S., Brock University; Ph.D., University of Minnesota
Assistant Professor of Biology - 1998
*David B. Landis - B.A., Whitman College; M.E., Montana State University; Ed.D., University of Massachusetts-Amherst
Assistant Professor of Education: Reading - 1995
Eric R. Lange - B.A., Trinity University, M.F.A., Temple University
Assistant Professor of Theatre and Technical Director - 1995
*Cherin A. Lee - B.A., M.A., University of Northern Iowa; Ph.D., Kansas State University
Assistant Professor of Biology - 1981 (1997)
*Min H. Lee - B.S., M.S., Seoul National University, Korea; Ph.D., State University of New York-Stony Brook
Professor of Mathematics - 1986 (1996)
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
Associate Professor of History - 1987 (1993)
*Michael J. Leiber - B.A., Marquette University; M.A., Ph.D., State University of New York-Albany
Associate Professor of Sociology — 1988 (1995)
Amy Leonhart - B.A., Wartburg College; M.A., University of Northern lowa
Instructor of Teaching: Elementary Education - 2000
"Yury S. Lerner - B.S., M.S., State Polytechnic University-Odessa, Russia; Ph.D., Ukranian Academy of Sciences-Kiev, Russia
Professor of Industrial Technology - 1995
Lucille J. Lettow - B.A., University of Northern Iowa; M.A., University of Missouri- Columbia; M.A., University of Northern Iowa
Professor and Youth Collection Librarian - 1980 (1997)
"Larry P. Leutzinger - B.A., M.A., University of Northern lowa; Ph.D., University of Iowa
Assistant Professor of Mathematics - 1988
"Tlmothy Lindquist - B.S., Northern Michigan University; M.B.A., Michigan State University; Ph.D., University of Colorado-Boulder
Associate Professor of Accounting - 1991 (1997)
Kirsten D. Linney - B.S., M.S., Iowa State University
Assistant Professor of Design, Family and Consumer Sciences - 2000
*Megan E. Lipke - B.A., University of Vermont; M.F.A., Cornell University
Assistant Professor of Art - 1997
*Thomas L. Little - B.A., Macalester College; M.Ed., University of Mississippi; Ed.D., Memphis State University
Associate Professor of Special Education - 1973 (1978)
"Bonnie H. Litwiller - B.S.Ed., M.S.Ed., Illinois State University; M.A.T., Ed.D., Indiana University
Professor of Mathematics - 1968 (1976)
*Steven E. Lobell - B.A., University of Wisconsin-Madison; M.A., New York University; Ph.D., University of California-Los Angeles
Assistant Professor of Political Science - 1997
*Mary Losch - B.S., Murray State University, M.A., Ph.D., University of Iowa Associate Professor of Psychology - 1998
Joan K. Loslo - B.A., Wartburg College; M.A., University of Iowa; M.A., University of Northern Iowa
Assistant Professor and Cataloging Librarian and Bibliographer - 1987 (1993)
*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

Associate Professor of Anthropology - 1987 (1995)
*James F. Lubker - B.S., Mankato State College; M.A., Ph.D., University of Iowa
Professor of Communicative Disorders
Dean of the College of Humanities and Fine Arts - 1995
*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., University of Iowa; M.B.A., University of Northern Iowa

Associate Professor and Electronic Reference Services Coordinator and
Reference Librarian - 1977 (1988)
*Annette F. Lynch - B.A., M.A., University of Iowa; Ph.D., University of Minnesota
Associate Professor of Design, Family and Consumer Sciences: Textiles and Apparel - 1991 (1999)
Director of Undergraduate Women's Studies Program — 1998
*Christine A. Macfarlane - B.A., Wayne State College; M.S., Ph.D., Utah State University
Associate Professor of Special Education - 1991 (1995)
*Catherine A.F. MacGillivray - A.B., Barnard College; M.A., University de Paris VIII; Ph.D., University of Califomia-Berkeley
Associate Professor of English - 1996 (1999)
Gordon Mack - B.A., Southern University; M.A., New York University
Director of American Humanics - 1993
*Kristin Mack - B.A., Marquette University, M.A., Ph.D., Iowa State University
Assistant Professor of Sociology - 1996 (1998)
*Mickey G. Mack - B.A., M.A., University of Northern Iowa; Ph.D., University of lowa
Assistant Professor of Physical Education
Project Coordinator, National Program for Playground Safety - 1995 (1996)
*James G. Macmillan - B.A., Western Washington State College; Ph.D., Ohio State University
Associate Professor of Chemistry - 1972 (1977)
"Douglas Magnuson - B.A., Bethel College; M.A., University of Minnesota
Assistant Professor of Leisure, Youth and Human Services - 1998
*Donna J. Maier - B.A., College of Wooster, M.A., Ph.D., Northwestern University
Professor of History - 1978 (1986)
James A. Maltas - 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
Associate Professor of Chemistry - 1991 (1997)
Joseph J. Marchesani - B.A., Fordham University, M.S., Brooklyn College; M.Ed., Temple University

Assistant Professor of Education: Educational Technology
Coordinator of Audio, Video and Telecommunications - 1972
Barbara J. Mardis - B.A., Shimer College; M.B.A., University of Northern Iowa
Instructor of Economics - 1981
"Jeanette J. Marsh - B.S., Mankato State College; M.S., University of New Mexico; Ph.D., University of Minnesota
Assistant Professor of Physical Education - 1975
*Jerilyn Marshall - B.A., Purdue University, M.L.S., Vanderbilt University; M.A., Northwestern University

Assistant Professor and Head of Reference and Instructional Services - 1998
*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)
*Christopher Martin - B.A., Capitol University; M.A., Emerson College; Ph.D., University of Michigan
Assistant Professor of Electronic Media - 1995
*Katherine F. Martin - A.B., Douglas College, Rutgers; M.S.L.S., M.A., University of North Carolina-Chapel Hill
Associate Professor of Library Science - 1993
Head of Collection Management and Special Services - 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)
Lori Mason - B.S., M.S., Ferris State University
Instructor of Accounting - 2000
Carol Matthews - B.A., Cornell University, M.A., University of Iowa
Instructor of Teaching: Language Arts - 1998
*Philip Mauceri - B.A., M.A., New York University, Ph.D., Columbia University
Associate Professor of Political Science - 1994 (1998)
*Charles R. May - B.S., West Texas State University; M.A., Eastern New Mexico University; Ph.D., Ohio State University, Ed.D., Vanderbilt University
Professor of Education: Early Childhood - 1982
"David W. May - B.G.S., University of Kansas; M.A., University of CaliforniaDavis; Ph.D., University of Wisconsin-Madison
Associate Professor of Geography - 1985 (1990)
"Tony N. McAdams - B.A., University of Northern Iowa; J.D., University of Iowa; M.B.A., Columbia University
Professor of Management - 1982
Janet E. McClain - B.S., Northern Illinois University; M.S.Ed., University of Dayton
Instructor of Teaching: Minorities in Teaching Program - 1976
William P. McClean - B.A., M.A., Arkansas State University
Assistant Professor of Political Science - 1999
Judith D. McConnaha - B.A., B.S., Ohio State University
International Field and Educational Experiences Coordinator - 1997 (1999)
${ }^{*}$ Wendell McConnaha - B.A., Wayne State College; M.S., M.A., Ed.S., University of Nebraska; Ph.D., Purdue University
Associate Professor and Director of Price Laboratory School - 1997
John W. McCormick - B.S., The Pennsylvania State University; Ph.D., University of California-Los Angeles
Professor of Computer Science
Head of the Department of Computer Science - 1996
*Kenneth J. McCormick - B.A., University of California-Riverside; Ph.D., lowa State University
Professor of Economics - 1982 (1991)
*James G. McCullagh - B.A., California State College-Chico; M.S.S.W., University of Missouri-Columbia; Ed.D., Northern Illinois UniversityDeKalb; J.D., University of Iowa
Professor of Social Work - 1981 (1989)
Mary H. McDade - B.S., University of West Florida; M.S., Oregon State University
Instructor of Biology - 1995
*Suzanne McDevite - B.A., M.S.W., Ph.D., University of Pittsburgh
Associate Professor of Social Work - 1992 (1997)
*Daniel L, McDonald - B.S., M.S., Ed.D., Oklahoma State University
Assistant Professor of Leisure Services - 1985
*Jean M. McDonald - B.M., Simpson College; M.A., D.M.A., University of Iowa
Associate Professor of Voice - 1988 (1996)
Terri L. McDonald - B.S., M.A., Murray State; M.A., Ed.D., University of Northern Iowa
Assistant Professor of Teaching: Electronic Media - 1990 (1998)
*LeRoy A. McGrew - B.A., Knox College, Illinois; M.S., Ph.D., University of Iowa
Professor of Chemistry - 1977
*David McKibbin - B.A., M.A., University of Nebraska; Ph.D., State University of New York-Buffalo
Assistant Professor of History - 1989 (1993)
Charles L. Means - B.S., Southern Illinois University; M.A., Webster College; Ph.D., St. Louis University
Adjunct Associate Professor of Educational Psychology and Foundations
Aseociate Vice President for Academic Affairs - 1983 (1989)
Director of Ronald E. McNair Program - 2000
*Ardith J. Meier - B.A., Wartburg College; M.A., University of Iowa; Ph.D., University of Vienna, Austria
Associate Professor of English — 1992 (1999)
*Marilyn Mercado - B.A., Point Park College; M.L.S., University of Pittsburgh; M.A., University of Northem Iowa
Associate Professor of Library Science - 1989 (1995)
Interim Dean of Library Services - 2000
*David R. Mercer - B.A., Clarion State College; M.S., University of Michigan; Ph.D., University of California-Berkeley
Assistant Professor of Biology — 1999
Kurtis S. Meredith - B.A., University of Southern Maine; M.Ed., Bd.S., James Madison University, Ph.D., University of lowa
Assistant Professor of Special Education - 1994
*Joyce B. Milambiling - B.L.S., Boston University; M.A., University of California- Berkeley; Ph.D., City University of New York
Assistant Professor of English - 1997
*Michael H. Millar - B.A., Harvard University; M.S., Ph.D., University of Chicago
Professor of Mathematics - 1962 (1975)
*Catherine M. Miller - B.A., M.A., California State-Long Beach; Ph.D., University of Arizona
Assistant Professor of Mathematics - 1997
*Christina R. Miller - B.A., Adams State College; Ph.D., University of Arizona
Assistant Professor of Chemistry - 1999
*Kim Miller - B.A., Wartburg College; M.S., Northwest Missouri State University
Instructor of Teaching: Special Education - 1985
R. Frances D. Miller - B.A., University of Nebraska-Kearney; M.A., University of Michigan
Professor of Teaching and Coordinator of Student Teaching - 1998
Karen S. Mills - B.A., Illinois Wesleyan University; M.Ed., Ed.S., University of Illinois
Instructor of Special Education - 1995
Cralg K. Mitchell - B.S., Iowa State University; M.B.A., University of Northern lowa
Instructor of Economics - 1990
*Karen S. Mitchell - B.S., M.S., Southern Illinois University; Ph.D., Louisiana State University
Associate Professor of Performance Studies - 1991 (1996)
*Carmen Montecinos - B.A., Universidad Catolica De Chili-Santiago, Chile; M.S., Ph.D., Southem Illinois University-Carbondale

Associate Professor of Educational Psychology and Foundations - 1990 (1995)
*Janey L. Montgomery - A.B., M.S., Fort Hays State University; Ph.D., Iowa State University
Associate Professor of Teaching - 1990 (1995)
Coordinator of Student Teaching - 1990
Susan M. Moore - B.A., University of Northern Iowa; M.A., University of Iowa; M.A., University of Arizona
Assistant Professor and Cataloging Librarian and Bibliographer - 1996
*Mario R. Morales - B.A., Universidad Rafael, Guatemala; M.S., Universidad de Costa Rica; Ph.D., University of Pittsburg
Assistant Professor of Spanish - 1998
*Sharon J. W. Mord - B.S., Illinois State University, M.S., Ph.D., Oklahoma State University
Assistant Professor of Design, Family and Consumer Sciences: Textiles and Apparel - 1992 (1995)
"David L. Morgan - B.A., Swarthmore College; M.A., Washington University, St. Louis
Assistant Professor of Philosophy - 1965 (1969)

[^13]*Jane Morgan - B.A., North Dakota State University; M.A., University of Wisconsin-Madison; Ph.D., University of Nebraska-Lincoln
Assistant Professor of Communication Studies - 1998
Leslie A. Morgan - B.M., California State University-Fullerton; M.A., University of lowa
Assistant Professor of Voice - 1986
*Siobahn M. Morgan - B.S., University of Minnesota; M.S., Ph.D, University of Washington
Associate Professor of Astronomy - 1991 (1997)
Jeff Morrison - B.A., University of Pennsyivania; M.F.A., University of Wisconsin- Madison
Assistant Professor of Theatre - 1999
*Farzad Moussevi - B.A., Institute of Advanced Accounting, Iran; D.A.S., Leeds Polytechnic, England; M.B.A., Roosevelt University; Ph.D., University of Arkansas
Professor of Mamagement (Organizational Behavior and Strategic Management) - 1985 (1997)

Associate Dean of the College of Business Administration - 2000
*Michelle Mouton - B.A., University of Wisconsin-Madison; M.A., Ph.D., University of Minnesota-Minneapolis
Assistant Professor of History - 1998
*Douglas Mupasiri — B.A., Lewis University, M.S., Ph.D., Northern Illinois University
Assistent Professor of Mathematics - 1993
*Wanpen Murgatroyd - B.A., Chulalongkom University, Thailand; M.Ed, George Mason University; Bd.D., George Washington University
Assistant Professor of Educational Leadership, Counseling and Postsecondary Education - 1998
*Plerre Damien Mvuyekure - M.A., National University of Rwanda; M.A., Ph.D., State University of New York-Buffalo
Assistant Profemsor of English - 1995
Benjamin F. Myers - B.Ed., University of Toledo; M.S., Eastern Michigan University
Instructor of Teachinge Physical Education - 1982 (1987)
*Anne G. Myles - A.B., Bryn Mawr College; M.A., Ph.D., University of Chicago
Assistant Professor of English - 1999
Nicole Needham Wee - B.A., M.A., University of Northern Iowa
Instructor of Teaching: Secondary Counselor - 1997
*Gienn T. Nelsen - B.Ed., Keene State College; M.S.T., University of New Hampshire, Ph.D., University of lowa
Associate Professor of Mathematics - 1974 (1980)
"Lauren K. Nelson - B.S., Northern Michigan University; M.A., Central Michigan University; Ph.D., Memphis State University
Associate Professor of Speech-Language Pathology — 1990 (1993)
*Christopher F. Neuhaus - B.S., University of Michigan; M.S., M.L.S., University of South Carolina
Assistant Professor and Reference Librarian - 1994
Ellen E. Neuhaus - B.S., University of Michigan; M.A.T., M.L.S., University of South Carolina
Assistant Professor and Multi-Service Center Librarian - 1997
Lee H. Nicholas - B.S., B.A., University of Kansas; M.B.A., University of Tulsa; CPA, CMA
Assistant Professor of Accounting - 1974
Curtis P. Nielsen - B.A., B.A., M.A., University of Northern Iowa
Instructor of Teaching: Elementary Education - 2000
*Lymn E. Nielsen - B.A., University of Iows; M.A., University of Northem Iowa; Ph.D., University of Lowa
Professor of Teaching: Elementary Education - 1980 (1992)
Julio Noboa - B.A., University of Illinois-Chicago; M.A., Northwestern University
Instructor of Teaching and Coordinator of Student Tenching - 1996
Kenneth E. Nuss - B.A., Wartburg College; M.S., Oklahoma State; Bd.D., University of Northern lowe
Instructor of Biology — 1995
Kathy R. Oakland - B.A., M.A., University of Northem Iowa
Instructor of Teaching - 1987
Pre-Student Teaching Field Experience Coordinator
Michael David Oates - A.B., Fairfield University, M.A.T., Assumption College; Ph.D., Georgetown University
Professor of French - 1967 (1975)

Penny J. O'Connor - B.A., M.A.s University of Northern lowa
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)
Assistant Vice President of Academic Affairs for International Programs - 1995
"Chukwyem Odiah - M.Sc., Tampere University, Finland; Ph.D., University of Toronto
Assistant Professor of Social Work - 1998
Barbara O. O'Donnell - B.S.Ed., Illinois State University, M.S.Ed., Western Illinois University, Ed.D., University of North Dakota
Assistant Professor of Education: Elementary Education - 1999
*Christian W. Ogbondah - B.A., University of Nigeris; M.A., University of Nebraska; Ph.D., Southern Illinois University
Professor of Journalism - 1989 (1998)
"Chinyelu Okafor - B.S., University of Ibadon; M.S., Ph.D., University of Wisconsin
Assistant Professor of Health Education - 1998
*Kevin C. O'Kane - B.S., Boston College; Ph.D., Pennsylvania State Uaiversity Professor of Computer Science - 1992
*Stephen L. O'Kane - B.S., M.S., Colorado State University; Ph.D., Washington University-St. Louis
Assistant Professor of Biology - 1996
Michael D. Oleson - B.S., M.Acc., Kansas State University; Ph.D., University of Illinois- Urbana-Champaign
Assistant Professor of Accounting - 1999
Vickj Oleson - B.A., M.A., University of Northern Iowa
Instructor of Teaching: Mathematics Education - 1996
*Dale W. Olson - B.S., Carleton College, Ph.D., University of Rochester
Professor of Physics - 1968 (1992)
Augustine Osman - B.A, MA., Ph.D., West Virginia University Professor of Psychology - 1986 (1999)
*Robert L. Palge - B.S., M.S., Ph.D., Colorado State Univeraity
Assistant Professor of Mathematics - 1999
"Catherine Palczewski - B.S., M.A., Ph.D., Northwestern University
Associate Professor of Communication Studies - 1994 (19\%)
Eugene A. Paoline III - B.S., M.S., Florida State University; M.A., State University of New York-Albany
Instructor of Criminology - 2000
"Recayl Pecen - B.S., M.S., Istanbul Technology University; M.S., University of Colorado; Ph.D., University of Wyoming
Assistant Professor of Industrial Technology - 1998
*Gerri Perreault - B.A., University of Minnesota; M.S., Mankato State University; Ph.D., University of Minnesota
Associate Professor of Educational Leadership, Counseling, and Posteccondary Education - 1997
Director of Leadership Studies - 1991
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 Special Collections Librarian and University Archivist - 1974 (1986)
-Jean M. Petsch - B.A., Iowa State University; M.A., University of Northern Iowa; Ph.D., Florida State University
Assistant Professor of Art - 1999
*Amy J. Phelps - B.S., Berry College; M.S., Ph.D., Purdue University
Associate Professor of Chemistry - 1993 (1997)
*Carol L. Phillips - B.S., Ohio State University; M.A.T. Washington State University, Ed.D., University of Northern Colorado
Assistant Professor of Physical Education - 1975 (1984)
Neil A. Phipps - B.A., M.A., University of Northern Iowa
Instructor of Teaching: Physical Education and Student Coordinator - 1990 (1998)

Miguel F. Pinto - B.M., M.Sci., Juilliard School of Music
Associate Professor of Vocal Coaching - 1992
*Bruce L. Plakke - B.A., M.A., Western Michigan Univeraity; Ph.D., Memphis State University
Associate Professor of Audiology — 1978 (1991)
*Antonio Planells - B.A., University of LaPlata, Argentinas M.A., Ph.D., Catholic University of America
Professor of Spanish - 1992
"Aaron Mayer Podolefsky - B.A., California State University-San Jose; M.A., M.A., Ph.D., State University of New York-Stony Brook

Provost and Vice President - 1999
Professor of Anthropology - 1990
*Gayle M. Pohl - B.A., Xavier University, M.A., Ph.D., University of Kentucky
Associate Professor of Public Relations - 1993 (1997)
Tony Polito - B.S., Radford University, M.B.A., Drake University
Instructor of Management - 2000
*Kurt W. Pontasch - B.Sn M.S., University of Idaho; Ph.D., Virginia Polytechnic Institute and State University
Associate Professor of Biology - 1989 (1994)
"Daniel J. Power - B.S., M.A., University of Iowa; M.B.A., Ph.D., University of Wisconsin-Madison
Professor of Management (Management Information Systems) - 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)
*Micheel P. Prophet - B.A, Shippensburg University, Pennsylvania; Ph.D., University of California-Riverside
Assistant Professor of Mathematics - 1999
*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)
*David J. Rachor - B.M., B.M.E., Peabody College; M.M., D.M., Indiana University
Professor of Bassoon - 1989 (1999)
*K. N. Rajendran - B.S., M.B.M., Banaras Hindu University; Ph.D., University of Iowa
Associate Professor of Marketing - 1988 (1996)
*Alien Rappaport - B.S., M.B.A., University of South Carolina; Ph.D., University of Texas-Austin
Professor of Finance - 1982 (1990)
"Donma 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; 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
Associate Professor of Marketing - 1991 (1997)
*Martha J. Reineke - B.A., Earlham University, M.A., Ph.D., Vanderbilt University
Professor of Religion - 1984 (1999)
Dennis L. Remmert - B.A., M.A., University of Northern Iowa
Assistant Professor of Physical Education - 1964 (1969)
Coordinator of General Education - 1997
"Celia J. Renner - B.A., University of Colorado-Boulder, M.A., University of Alabama- Birmingham; Ph.D., University of Colorado-Boulder, CPA
Assistant Professor of Accounting - 1995
"Basil J. Reppas - B.A., University of Athens, Greece; M.A., American University of Beirut, Lebanon; Ph.D., University of lowa
Professor of Educational Psychology and Foundations - 1961 (1976)
*Thomas W. Rice - B.A., University of Iown; Ph.D., Iowa State University
Associate Professor of Political Science
Head of the Department of Political Science - 1999
*Paul E. RIder - B.A., Drake University, M.S., Iowe State University; Ph.D., Kansas State University
Professor of Chemistry - 1969 (1979)
*Don Rierson - B.A., University of North Carolina; Ph.D., M.M., Florida State University
Assistant Professor of Opera - 1997
Beverty A. Riess - B.A., University of Northern Colorado; M.A., University of Northern Iowa
Instructor of Teaching
Coordinator of Student Teaching - 1991

Shoshana Shonfeld Ringel - B.A., M.S.W., Hunter College, New York Assistant Professor of Social Work - 1999
-Jan C. Robbins - B.A., Pennsylvania State University, M.A., Ph.D., University of Minnesota
Professor of English - 1976
Carol Cook Roberts - B.A., University of Northern Iowa; M.S.W., University of Iowa
Instructor of Social Work - 1999
*CherytA. Roberts - B.A., Illinois State University, M.A., Ph.D., University of Illinois, Urbana-Champaign
Associate Professor of English - 1986 (1995)
*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.Dn University of Wisconsin- Madison
Associate Professor of Religion - 1971 (1980)
Vietoria L. Robinson - B.A., M.A., Ed.D., University of Northern Iowa
Assistant Professor of Educational Leadership, Counseling and Postsecondary Education - 1991 (1996)
"Susan M. Rochette-Crawley - B.A., Kent State University, M.A., Boston College; Ph.D., University of Wisconsin-Madison
Assistant Professor of English - 1994
Tomas Rodriguez - B.A., St. Ambrose College, J.D., University of Iowa
Instructor of Management - 1992
"Bruce G. Rogers - B.A., M.A., Arizona State University; Ph.D., Michigan State University
Professor of Educational Psychology and Foundations - 1975 (1988)
-Sara Rosell - B.A., University of Havana; B.A., M.A., Ph.D., University of Iowa Assistant Professor of Spanish - 1998
Linda Rosulek - B.A., Purdue University, M.A., University of Northera Iowa
Instructor of Teaching and Coordinator of Student Teaching - 2000
Michael W. Roth - B.S., Ph.D., Colorado State University
Assistant Professor of Physics - 2000
*Roberta M. Roth - B.S., Iowa State University; M.B.A., University of Minnesota; Ph.D., University of Iowa
Associate Professor of Management (Management Information Systems) 1980 (1996)
*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 (Human Resources) - 1985 (1991)
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[^0]:    Required:
    Biology Core:
    Introductory: 840:051; 840:052......................................... 8 hours
    Group I: Select one option ....................o........................ 4 hours
    
    Group III: Select one option .n..................o.......................... 3 hours
    
    Cognate courses:
    Chemistry: 860:044 and 860:048*; 860:120,
    $860: 121,860: 123$ or both $860: 063$ and $860: 132$........ 16 hours
    Earth Science: 870:031 and 870:035 or
    Physics: 880:054; 880:056 $\qquad$ . 8 hours
    Electives in Biology (100-level or above, excluding 840:101)
    or $860: 154$
    12-13 hours

[^1]:    Required:
    Biology Core:
    Introductory: 840:051; 840:052........................................ 8 hours
    
    Methods:
    Science and Science Education: 820:190; 820:196 ..ocoo.o.e 3 hours
    
    Electives in biology: (100-level, excluding 840:101) ....o.oos....... 10 hours
    27 hours
    *Students with excellent preparation in Chemistry may substitute 860:070.

[^2]:    Required:
    Mathematics: 800:060; 800:061; 800:076; 800:152 $\qquad$ 14 hours
    Computer Science: 810:041; 810:051;810:052; 810:053;
    810:080; 810:142; 810:143; 810:153; 810:154;
    810:161 (lab required); 810:171; 810:172; 810:181 $\qquad$
    Research: 810:180 (topic pre-approved by department) or 810:189 $\qquad$ 1 hour

[^3]:    Required:
    Reading and Language Arts: 230:130*; 230:132; 230:140; 230:147; 230:192; 230:193 ( 1 hr .)..................................... 16 hours
    English Language and Literature: 620:034*; 620:165* .......... 6 hours
    TESOL/Applied Linguistics: 630:130* ..o............................... 3 hours
    One of the following courses*: English Language and Literature: 620:103; 620:104; 620:193................... 3 hours

    28 hours
    *Course work required on current English teaching major.

[^4]:    Required:
    Educational Technology: 240:205 or
    Industrial Technology: 330:119 $\qquad$ 3 hours
    Industrial Technology; 330:181; 330:191; 330:193; 330:200; 330:282; 330:290; 330:292 .15 hours
    English Language and Literature: 620:105 ..... 3 hours
    Required Research:Thesis: 330:299 6 hours
    ORNon-thesis: 330:270 (for completion of thedepartmental research paper)
    $\qquad$ 3 hours
    Electives approved by advisor:
    Thesis ..... 4 hours
    OR
    Non-thesis
    9 hours
    Suggested electives:
    Educational Technology: 240:131; 240:235.
    Measurement and Research: 250:180.Industrial Technology: 330:271; 330:280; 330:291; 330:295; 330:297.

[^5]:    

[^6]:    

[^7]:    *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 capscity.

[^8]:    *Regular graduate faculty member

[^9]:    *Regular graduate faculty member

[^10]:    *Regular graduate faculty member

[^11]:    *Regular graduate frculty member

[^12]:    *Regular graduate faculty member

[^13]:    *Regular graduate faculty member

[^14]:    *Regular graduate ficulty member

